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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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(INCORPORATED.)

Vol. V.

CHICAGO, ILLINOIS, OCTOBER 15, 1886.

No. 4.

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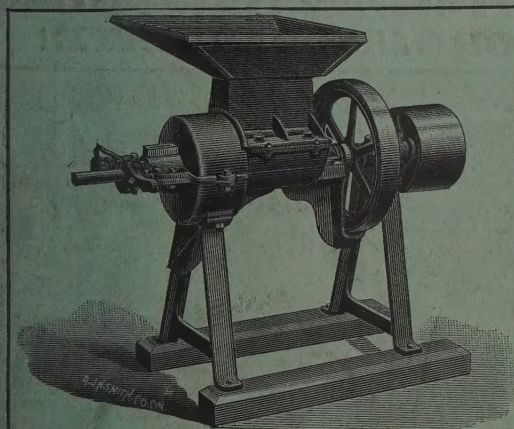
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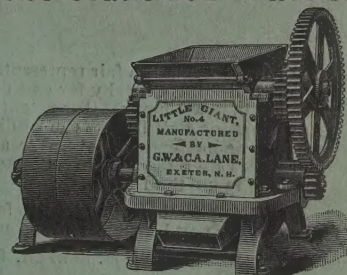
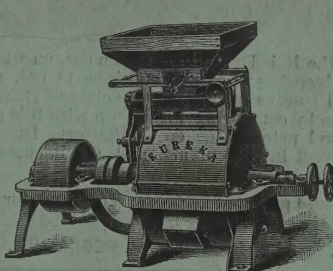
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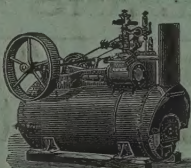
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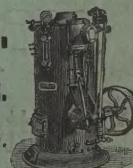
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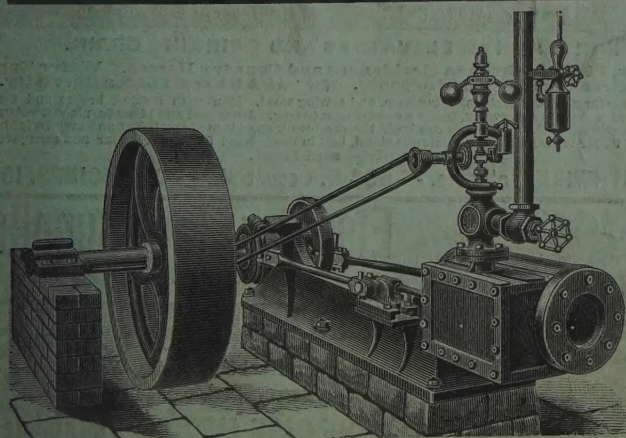
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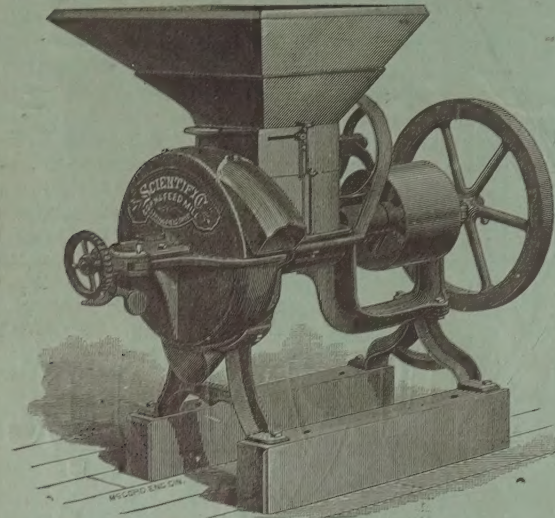
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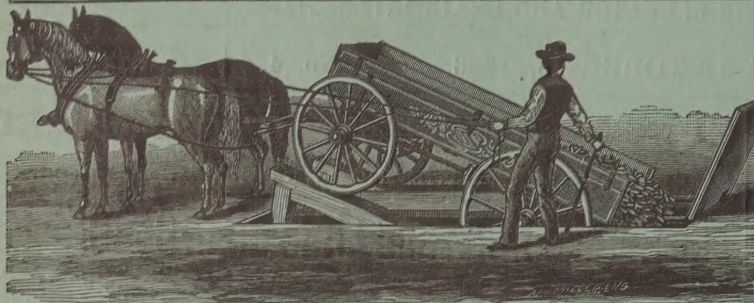
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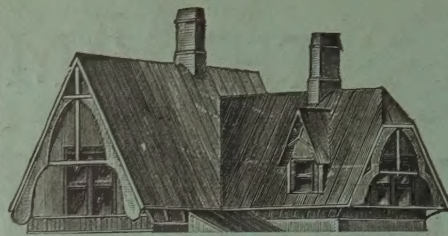
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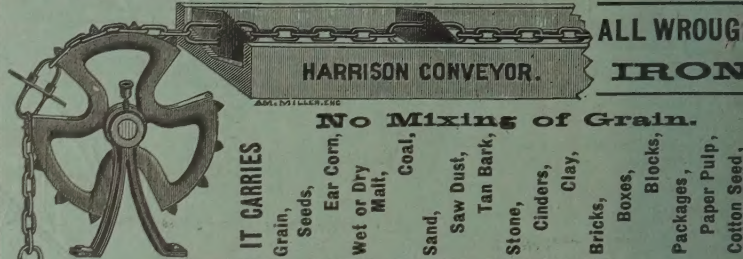
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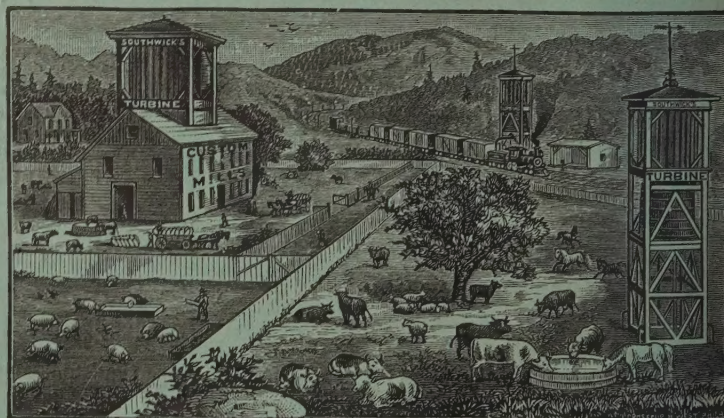
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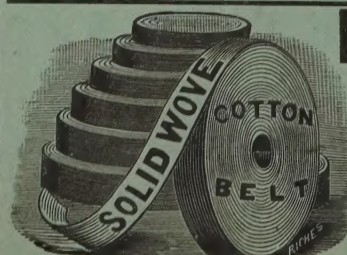
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## THE TWO NEW ELEVATORS AT DULUTH.

J. T. Moulton, the celebrated elevator builder of Chicago, who has already built nearly all the elevators in Duluth, as well as in many other leading grain centers of the United States, was in Duluth yesterday in conference with the officials of the Union Improvement and Elevator Company and the Lake Superior Elevator Company. He returned to Chicago last night to make plans for two mammoth elevators. One, to be built by the Union Improvement Company, is to be located 500 feet out in the bay from Elevator "E," and will be reached by an extension of the tracks to that house. A solid crib dock is to be built 400 feet long and either 96 or 106 feet wide, and inside of this the elevator will be built on a pile foundation like the other Duluth elevators, that being found the best foundation for the immense weight of such structures. The elevator itself will be 320 feet long and either 84 or 96 feet wide, and probably will have a capacity for a million and a half bushels of grain. It will be nearly the same plan as Elevator "D" and will be one of the finest elevators in the world. It will be so arranged that vessels can be unloaded from both sides, something new here, and will be so placed that the heaviest draught boats can get to both sides of it. This will give it a shipping capacity of some 100,000 bushels an hour. The cost of this magnificent elevator, with the dock and the large amount of dredging that will be done for both the dock and the approaches on both sides, will approximate \$300,000. This elevator will be used by the Manitoba and Omaha Roads, the tracks of both of which now run into "E."

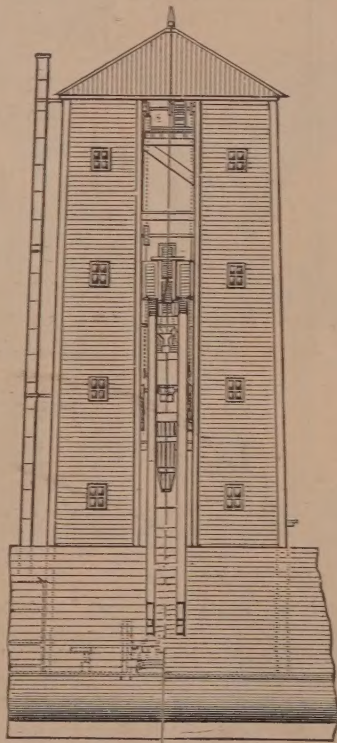
The second elevator to be built will be by the Lake Superior Elevator Company, and its location has not been decided upon. It will probably have a capacity of 1,750,000 bushels, making it the largest elevator west of Chicago, and excelled by but three or four in the country. It will not be a shipping elevator and will not be located on the water front, but it will have all the machinery necessary to receive and elevate grain from cars and will be an elevator, and not a simple storage warehouse. It will be about 400 feet long and 100 feet wide, with bins 50 feet deep. Some five or six million feet of timber will be used in the construction of this mammoth structure, and its cost will be in the neighborhood of \$150,000. Cars can be unloaded into the house, and the wheat will be unloaded from it into cars. It is expected that work on the foundation of one or both these elevators will be begun before snow flies.—*Duluth Daily Trade.*

J. Hine, of Dundee, Mich., claims to have raised 238 bushels of wheat on four acres of land, 59¼ bushels to the acre.

## A FIFTY-TON FLOATING GRAIN ELEVATOR.

On this page and the next we give illustrations of a 50-ton floating elevator made for operation in the harbor of Dunkerque, France, by the firm of Spencer & Co., of Melksham, Eng., who have made a number of floating elevators for use in different European harbors:

As will be seen from the engravings, the machinery is contained in a wooden tower which is erected on a strong



A FIFTY-TON FLOATING ELEVATOR.

barge. A condensing engine of 15 nominal horse power is fixed in the hold to drive the gear, and is supplied with steam from a Cochran boiler. Two outside elevators (Figs. 1 and 2) are suspended on universal joints from the outer end of a strong steel shoot or trunk of  $\square$  section, the inner end of the trunk being hinged on a shaft  $a$  which is mounted on rollers, and traverses a curved roller path  $b$  from back to front of the tower. In the trunk is an india-rubber carrying band, running over terminal pulleys  $c$  and  $d$  at either end. This band is driven from a pulley  $e$  below the deck in the centre of

the tower, and as the curve of the roller path is struck from the centre of this pulley, the band is driven equally well at all points of its traverse. The outside elevators are driven by this band, through Ewart's Patent Drive Chain. In consequence of the varying draught of ships and barges, it is of course necessary that the elevators should have a certain vertical range, and from this it follows that at times the band will form a considerable angle with the horizontal line both up and down; special arrangements are therefore needed for putting and keeping the grain on the band. This is most effectually done by means of (1) a feed apparatus  $f$  which lays the grain on the band at the same speed at that which it is traveling, and (2) by means of inclined carrying rollers  $g$ , which give a trough-like shape to the top side of the band. The carrying capacity of the band is also thus increased, and waste is entirely prevented.

The trunk and elevators may be moved horizontally or vertically while the machine is at work, being under the complete control of one man on the deck, or, when out of use, may be run back and completely housed inside the tower as shown by dotted lines at  $h$  (Fig. 2). In the tower are fixed four of Pooley's Automatic Weighing machines, a Barnard & Leas Separator or Cleaning Machine, two internal elevators of ordinary construction, an exhaust fan, a sack hoist, and all the necessary gearing for hoisting or lowering the trunk, or racking it in or out.

Having now described the machinery, a few words are necessary to explain the way in which the grain is dealt with. After being raised from the hold of a ship and brought into the tower by the outside elevators and band, it is passed through the largest of the weighing machines, which is capable of weighing the maximum quantity the machine can deliver; it then falls into an elevator bottom and is raised to the top of the tower, passes through the separator, and after being cleaned is weighed again in the smaller machines. From these it may either be received in the sacking hoppers and sacked, or be again elevated to a convenient height and thrown out into barges alongside. The machine is capable of discharging grain at the rate of fifty tons per hour, and at a much lower cost per ton than is possible by hand labor.

The corn crop of Kansas this year is very much less than that of last year. And yet, says the *Topeka Capitalist*, the yield is estimated at 120,000,000 bushels, or 12,000,000,000 ears of corn, each measuring twelve inches in length. This crop, if strung upon a twine in the manner that beads are strung upon a thread, would make a string of corn 2,372,727 miles in length, and would encircle the earth ninety-one times. If laid side by side, this string would make a solid floor 2½ inches in thickness and 225 feet wide, running entirely around the heart at the equator.



[For the AMERICAN ELEVATOR AND GRAIN TRADE.]

## THE FUTURE OF THE GRAIN TRADE —COSMIC COMMERCE AND TRANSPORTATION.

NO. V.

Great jealousies exist between the nations professing Christianity, especially in Europe. These would be amusing if they were not associated with multiplied errors, woes and crimes. Of these modern history is full. And many a chapter will be added in the future at the best, and still more if Christendom does not more wisely, more truly, and more solidly advance; in conformity with its professions, its duties and its interests; and with the welfare, safety and happiness of its people, and the people of the world.

President Millard Fillmore, of these United States of America, was no theorist, or sentimentalist, and his action toward Japan—the vestibule of Asia on the Pacific—was very quietly and wisely taken, simply as a proper and right measure of true statesmanship. Atheism, demagogism, and other isms, and unchristian jealousies and corrupt policies have somewhat marred its glorious and splendid fruits; yet nothing in modern history is more excellent and wonderful than the changes and the progression of Japan since that epoch. Politically, England has not made as much progress in the last two hundred years—favorable to the masses of its people, and hence to Christianity, as Japan has made in less than thirty-three. And never yet in the history of mankind has the knowledge and use of letters spread so rapidly as in Japan, though perverted, of course, as is all literature.

If to the vast masses of rubbish in Asian literature are to be added those of Europe and America, the human mind will be hopelessly "swamped" indeed. They are told that the educated and able people in our country do not believe in Christianity, and this, of course, tends to confusion among them.

Nothing impressed the minds of the Japanese more than the power over some of the hidden forces of nature, such as steam and electricity, which Commodore Perry illustrated to them for the first time. The Great Master had illustrated Divine power over all the forces of nature, at the western extremity of Asia in his miracles more than eighteen centuries before, and the ineffaceable record remains, and will forever remain, stamped upon the human soul.

But Asia remains unchristianized and uncivilized. Yet in a thousand years no better advance has been made than in that ancient empire, seated in those beautiful islands, directly opposite our Western coast, and on that inner sea from whence should start the great Trans-Pacific Railroad to the Caspian Sea, near the parallel of Peking, of the Great Wall, of Kashgar, of Samarkand, of Bokhara, and beyond, and most sublime of all, of Mount Ararat, thus connecting and completing great belts of steam travel and transportation around the whole world, through the heart of the temperate zone, and uniting the Christianity civilization and advancement of the world in the very center and heart of High Asia, whose loftiest peaks soar far above the clouds, and at several places reach the height of twenty-eight thousand feet above the level of the sea, and whose table lands, over which this road must pass, reach an elevation of twelve thousand feet, or double the height of the highest peaks of our Eastern or Southern states. As we have before stated, Central Asia has a region about six times as large as the

whole United States, that is destitute of maritime advantages, has substantially little navigation, and in which the toil, cost, hardship, and danger of caravan journeys is so IMMENSE that it has been, and is, secluded from the world, and its resources and wealth are almost unexplored and unknown, but are unquestionably immense, varied, enduring, widely diffused, and adapted to beneficent and sublime results; whose consummation can not fail to be promoted by honorable commerce in almost every commodity, and perhaps in none more than in Asian rice, and American corn and its products. This great cereal can not be produced in the uplands of Asia, nor in Siberia, and nowhere on earth does the labor of one man produce so much as in our country.

Hence, beyond a doubt, it is Asia, and not Europe, that is to become our greatest market for these products in the future, and a future that will soon be reached, if we do not allow De Lesseps and his friends to be de-

There are, of course, a great set of interests of various great nations, and many jealous apprehensions, that these measures may awaken, if we may judge by the past. For the class of men who have drenched the world in blood did nothing to aid the cosmic work at the Isthmus of Suez, but did much to oppose it. So precisely at Darien. Next after these gateways for the world's navigation, is this great Asian railway, which will be the greatest in the world, and, as affairs now stand, should be built by Americans with American rails, and under the auspices of China, Russia, Korea, and Japan, though Japan has no territorial rights that would be directly touched. These are mostly held by China. On the north, Russia is now connecting the great rivers Obi, Yenesei, Lena, and Lake Baikal, thus forming a vast and connected system of inland navigation for Northern Asia. This would be within from seven hundred to a thousand miles of our great East and West railroad near the fortieth parallel, after which there

would remain in all Asia scarcely a single caravan route of over a thousand miles; scarcely a place over that distance from steam navigation or railways. On the south, France has important interests on the Gulf of Tonquin, and a railway would doubtless be built by the French and Chinese from thence northward to intersect this Pacific and European line.

Strange as it may seem, both the Indus and the Brahmapootra Rivers rise north of the Himalayas, and pass through that stupendous mountain range, on their way to the tropic seas. Hence, as the other ranges are not so lofty, or their passage so difficult, it would seem very possible that under wise and liberal policies one or more railways might be built northward from India to the rivers of Siberia, crossing the great East and West line, that would connect and complete highways to belt the globe.

There are yet many more great Asian, European, and American interests that can be united in behalf of a truer and broader civilization and commerce, and in the best interests of humanity, in support of this line, which is a Trans-Pacific line to this hemisphere, but only Trans-Caspian to Europe, Asia Minor, Egypt, and the North of Africa. All these would be its patrons.

The Prussian and the Persian governments are now on very friendly terms, and each keep resident legations at the courts of each country. Moreover, their people are allied by a community of interests, feelings, and tastes in many things, although so

widely separated and so dissimilar. This is shown by an analysis of their poetry, the highest expression of nations and individuals, at least in its essence, in many cases. Now, Prussia and Persia fill very important places in Europe and Asia, and can and will, in the whole circle of the world.

Bread and salt are the emblems of hospitality in Russia, and are great factors in all human affairs, and in commerce and transportation. Russia's usual surplus of breadstuffs is large, and will soon be larger yet. But, in much of that great empire, salt is scarce and dear, and must be carried great distances. And in India its enormous cost to those in the extreme of poverty and destitution, through incredible taxes, is a fearful reproach to the British Government and civilization. Persia is provided by nature with unlimited resources for the production of this great article of human necessity (and essential also to the most valuable domestic animals) both in vast salines, and in immense stores of natural rock salt. And the whole cosmic situation of affairs seems now to demand an early development of this great

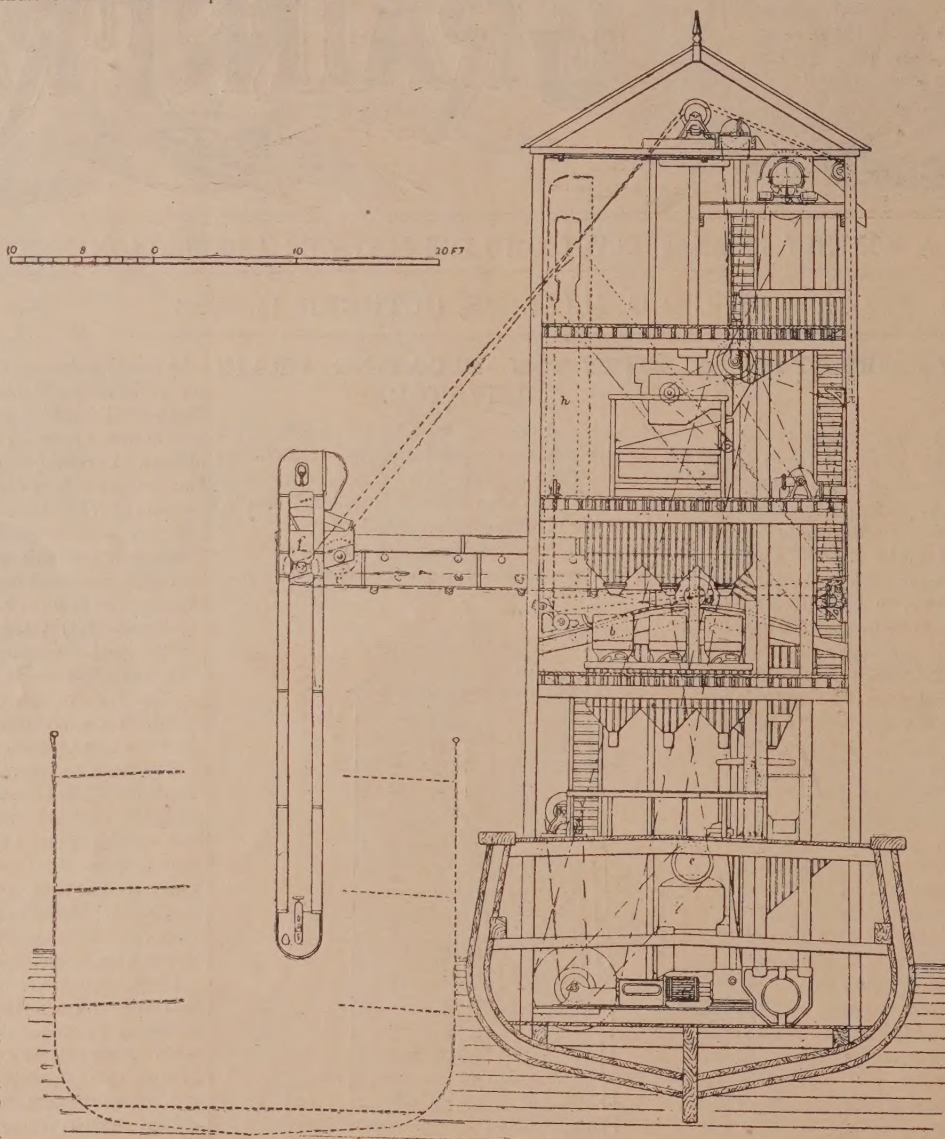


FIG. 2.—SECTIONAL VIEW OF FLOATING ELEVATOR.

feated or delayed at Darien, through the difficulties and cost of the work, and the influence and secret power of unfriendly interests on both sides of the Atlantic, and the failure of the support to which the sea-level canal at the isthmus is entitled from our country and all its people.

By this cosmic work at Darien, and by the needed and moderate work, suitably linking Lake Michigan and the Mississippi, by the line of the Illinois, the Calumet, and the Illinois and Michigan Canal; steel rails can be laid down on the Asian coast with due economy, from any and all the American works, and this interior of our country can be brought into proper relations in every sense with all Asia to the infinite good of all the world in every sense. The Great Master of our faith, and the center of our highest hopes, never neglected physical instrumentalities, and vain and empty is the thought that Christendom can fulfill its duties, or safely promote its welfare, and the safety and happiness of the people of the world, without this subjugation of the resources of nature, which was one of the earliest commandments of God after the fall of man, and the command to labor.



resource, and others equally neglected, and also to be highly favorable therefor.

One of the very greatest sources of Russia's advancement and power since the time of Peter the Great, is her vast and splendid system of inland navigation, prepared for in nature, but neglected through many ages of barbarism, weakness and poverty, until the genius and patriotism of Peter opened a new book in her long history (which a thousand years will not cover), and since which she has rapidly advanced to the foremost place among nations in material power, and in independence of others also.

"Cheap transportation" has, indeed, done wonders for Russia already, and is yet to do greater for her, and for the whole human race, INFINITELY GREATER.

This inland navigation, connecting the White, the Black, the Baltic, and the Caspian Seas, by various natural systems, united by a very few artificial connecting links or canals, has its focus toward Asia on the Caspian, the connecting basin between Europe and Asia proper, which by the river Volga, the Don, and a short canal, is well connected with the Black Sea—the great natural basin between Eastern Europe and Asia Minor. Thus it will readily be seen that the CASPIAN IS THE PROPER INTERIOR BASE AND WESTERN terminus for the great Trans-Pacific line already described. That secluded inner sea is yet to become a most important focus of commerce and transportation. Through Persia, from the southern end of the Caspian to the head of the Persian Gulf, a first-class railway with necessary branches, built by German capitalists under a wise and liberal policy, and a more guarded concession than the monstrous one obtained by Baron Rexeter for English speculators, would be of vast benefit to Persia, to India, to Russia, to Europe, Asia, and the world.

This project could not fail to aid and facilitate the one from the Sea of Japan to the Caspian; and both would be freighted with benefits to all in the grand advance, which the Great Captain has indicated, and for which both nature and art have so well prepared the way.

And no more sound or grand railway projects, in a business sense, or in any sense, can be shown on earth; and they touch all our interests, as a people, and all our duties as men.

Says Isaiah, the great Asian prophet and poet:

"And it shall come to pass in the last days,  
That the mountain of the Lord's house  
Shall be established in the top of the mountains,  
And shall be exalted above the hills;  
And all nations shall flow into it."

"And he will lift up an ensign to the nations from far,  
And will hiss unto them from the end of the earth;  
And, behold, they shall come with speed swiftly."

"All ye inhabitants of the world, and dwellers on the earth,  
See ye, when he lifteth up an ensign on the mountains;  
And when he bloweth a trumpet, hear ye."

The steam engine seems to be here introduced, in his grand symphony, with peculiar exactness, as one of God's instruments in accomplishing the most sublime results.

Reader, who may have patiently followed the course of these papers, and studied and grasped their truth, permit the writer to hope you may live to see these works finished, and that you may pass over the great Trans-Pacific Railway in one of Mr. Pullman's cars, drawn by an American engine, guided by a trusty American engineer, and may listen humbly and reverently to glorious music in a Christian temple at the highest point of Asia, over which it will pass.

Meantime, should Asia know that Christendom had resolved to banish famine from its own borders and from hers, your welcome would be assured.

And our mother Eve, bending from the skies, seeing this triumph of her boys over the obstacles of nature, and seeing the mark of Cain, and all its correlatives, effaced or obscured, would surely rejoice in her children of America, Asia, Europe, and the world.

Let us then seek to wisely advance, and justly do our work, and finish our earthly course.

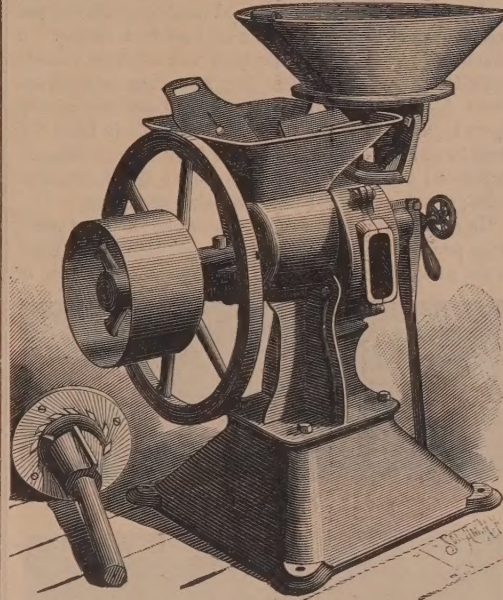
W. T. STACKPOLE.

Fairbury, Ill., Sept. 22, 1886.

The statement that Russia will export 100,000,000 bushels of wheat this year may be true; but if it is, some tall lying has been perpetrated about the wheat yield of that country. The yield was reported not long ago to be at least 40 per cent. under average. If the Czar concludes to go to war over Bulgaria, Russia will not export a quart of grain.

## THE "QUAKER CITY" GRINDING MILLS FOR CORN AND COBS, GRAIN, BONES, ETC.

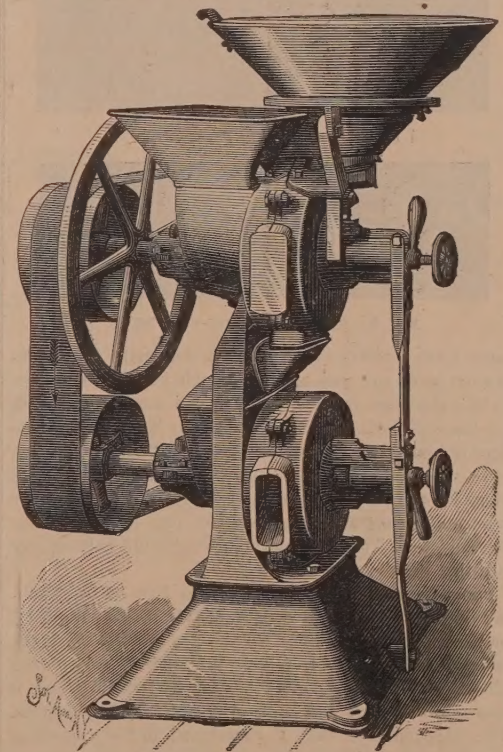
The accompanying illustrations represent some recent improvements in a well-known disk grinding mill, adapted for grinding grain, corn, and oats mixed, or corn and cobs, both old and green, bones, etc., as well as for grinding minerals and paint, and a wide variety of work. Many of our readers are interested in mills for these



QUAKER CITY GRINDING MILL.

various purposes, and will peruse the following brief description with interest:

The cutting of the cobs, bones, etc., is effected by a hardened cast steel knife, let edgewise into the cone-shaped cutter-head upon the spindle. When this knife requires grinding or renewing, it is



DOUBLE QUAKER CITY GRINDING MILL.

lifted from its seat by driving a cold chisel under one end, and it can be easily driven back again after sharpening.

It is shown in position upon the spindle in the illustration, near the single grinding mill. Back of the knife, and inside of the grinding disks, is a series of pockets formed in the cone head, to act as receptacles when the knife cuts too fast for the disks to grind, these pockets delivering their contents to the disks when the knife cuts slower, and thus equalizing the work. One such knife upon the cutter head is considered preferable to more

than one, as allowing more time for the cobs to descend between cuts.

The double mill, which is a novelty, works on the principle of gradual reduction grinding, the top mill cutting and grinding as fine as a single mill, and then discharging into the lower mill, which grinds still finer, and discharges the product from either side of the case as desired. The belt, as shown, passes over two pulleys, in the manner indicated by the arrow, thence back to the driver, and in this way is found to work well, without slipping. A hopper and feed shoe is provided for feeding all shelled grain.

The grinding disks are of cast steel, interchangeable, and cheaply renewed. They are divided into the saw-toothed inner edge or eye, upon which is located the conveyor flights; the bosomed space between the disks is filled with furrows, running their knife edges front to cut the grain fine, and the flat outer portion with furrows running their inclined side front, crushing or mellowing the already cut meal, in the manner of corrugated rolls running at different speeds. The spindle is of steel, with hardened steel button between its end and the temper screw. It has a hub which carries the running disk, cob cutting knife, eccentric, and pulley.

These mills are manufactured by Messrs. A. W. Straub & Co., of No. 8377 Filbert street, Philadelphia, Pa., who have issued an illustrated pamphlet describing these mills in detail, which they will send applicants.

## MORALS OF SPECULATION.

BY MORRIS H. SMITH.

In a recent article in *The Christian Advocate* under this heading, it is stated "that sales are made in the Produce and Stock Exchanges for delivery at a future date, in which neither party expects delivery or reception; but the understanding is that one or the other party shall pay the difference between the price agreed upon and the market price at the maturity of contract." This was said to be gambling, and the evils of this class of business very graphically depicted. A like statement is made in the July number of *Harper's Magazine*. The writer never knew of such a transaction, although he has had upward of thirty years' experience in the business of these Exchanges.

This illustration of the ignorance of the public about a business that occupies so large a space in the newspapers is the excuse of the writer for attempting to show its utility by a statement of what the business is.

The modern method of storing grain is to mix or pool all of a certain grade under the direction of official inspectors, who pass upon its quality. The warehouse company giving a receipt is not expected to deliver the identical wheat or corn stored, but only of the same quantity of the same grade. The result is that persons having no technical knowledge of grain can trade in it. Transactions are facilitated by the issuing of certificates, each representing 8,000 bushels, which is the equivalent of a canalboat load. These are made negotiable—that is, they are so prepared that the title to the grain passes without any other formality than the delivery of these certificates, so that one load of wheat may be the means of settling many contracts in a day, and make it possible for a merchant to transact the enormous business which makes the public incredulous as to the intention actually to deliver the grain sold.

When made by a broker for his customer, the customer is required to deposit a sum of money with the broker to secure him against loss. This is called a margin. In such dealings the broker is the principal, and makes the contract for future delivery.

Steamships, railroads, and the telegraph have so quickened intercourse, and affected such changes within half a century, by making the surplus of grain in one country available in any other, as to lessen the danger of famine in civilized lands, but there are times when the earth does not produce abundantly, and if consumption should proceed at the ordinary rate supplies would be exhausted long before new harvests would be available.

We hear of the "law of supply and demand," but what is the machinery by which this law is enforced?

If we study speculation on the Produce Exchange we see the machinery, and also the governor which regulates the rate of speed at which it runs.

The problem given to the speculator to solve is a complex one. It is: What is the world's supply of wheat and corn, and how fast is it being consumed? Is the



consumption so fast that there will not be enough to last till new harvest? Is it so slow that there will be a large surplus of old grain at harvest? Are the prospects for the growing crops so unfavorable that a large reserve should be maintained? Are they so favorable that it is well to consume our supplies and carry little into new harvest year?

To answer these questions the telegraph, cables, and the mails are used, the press of the world is anxiously scanned; the agricultural departments of the nation and of the several states carefully watch, tabulate, and publish the indications. The winter wheat is watched to see if blanketed with snow, or the roots exposed, to be torn by the action of the frost; the quantity of land plowed is estimated; the effect of an early frost, the ravages of flies, insects, and worms, late and early seasons, drought, excessive rains, floods, all are reported; the extension of railroads in India, the fall in the value of silver as stimulating shipments of wheat from India; statistics, opinions of men versed in these matters—all these things enter into the estimate, and they are revised from day to day. It is a veritable Congress of Nations, in which all have a voice, and all who choose can not only vote, but "vote early and often," for the polls are open every business day in the year.

Of the speculators, those who think the grain is being used too fast, vote by buying it, and, by thus enhancing its price, check the consumption. Those who think there is more grain than needed, vote by selling it, and thus, by reducing the price, hasten the consumption. English merchants, finding that our crops are held relatively at too high a price, purchase elsewhere and sell short in this market.

The general effect of all this action and counteraction is conservative. The wheat and corn that would formerly have been shipped immediately to Europe are held back and a large reserve retained in the country. It is like the corn stored by Joseph in Egypt during the years of plenty for the years of famine. It might have been converted into cash, and after a plentiful harvest there may be those ready to say that it would have been wise to have depleted the country of all its stores, and have taken the chances; yet, if a time of scarcity comes, we may congratulate ourselves and applaud the sagacity of speculators that gave us such a reserve.

The advantages of speculation to provide a means of holding or carrying large quantities of merchandise are even more apparent in the case of petroleum than in that of grain. Vast quantities of this oil were produced, much in excess of the requirements of consumers or of the demand for export. Unless some means of storing and holding had been devised it would either have gone to waste, been forced at low prices on foreign markets, or the production would have been restricted. But putting it in tanks at the place of production, by issuing of storage receipts by a responsible corporation for lots of one thousand barrels held in bulk, which are bought and sold and used as collateral for borrowing money, this oil is held back as a source of supply when the quantity produced shall be needed.

If it has been shown that the speculative business of the Stock and Produce Exchanges is legitimate and of public utility, then, as the greater includes the less, the morality of individual dealings is established; but we will take the case cited in the article named, the morality of which is admitted. It is that of "a merchant in the grain trade," who "may acquaint himself with the probabilities of demand, for example, in Europe, and contract to deliver a certain quantity of wheat within two, four or six months, as may be agreed. He knows his ability to fulfill the contract, expects to buy at lower and sell at higher prices, and thus to make profit."

No one desiring to uphold the morality of transactions on the Stock and Produce Exchanges could ask any larger concessions than this, for it covers all legitimate dealings of a speculative kind. If this man is justified in selling what he does not possess, it certainly would be right to buy for future delivery.

If it would be lawful for a grain merchant to make such a sale, would it be immoral for one not in the business to do it through a broker, provided "he acquaints himself with the probabilities of demand, for example, in Europe," or though he even trades on his impressions? If his transactions were through a broker, it would not be a question of his "knowing his ability to fulfill the contract," because the broker would make the contract, and be indemnified by a deposit of money as margin, together with the privilege of closing the contract by purchase or sale when the margin is exhausted. Cer-

tainly, the morality of the transaction would not turn on "his expectation to buy at lower and to sell at higher prices, and thus make a profit."

### A PAIR OF BELT LACES.

A couple of correspondents of the *Wood-Worker* have been giving their ideas about belt laces. One of them tells how he fixed a machine belt that had given a good deal of trouble. He says:

"I got a new eight-inch belt and went to work and put in a lace that I had never seen or heard of before. I punch two rows of holes; the back row must be exactly behind the front row. The first row must be punched about  $\frac{3}{8}$ -inch from the edge or end, the second row about  $1\frac{1}{4}$ -inch from the first row; each hole in back row must be opposite the holes in the front row. In an 8-inch belt I put seven holes; in a 5-inch belt I put four holes; in a 6-inch belt I put five holes, and so on.

"In punching the first row of holes be sure and use a large punch, large enough to take your lace three times, as the whang has to be passed through the first row of

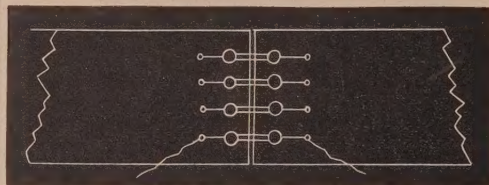


FIG. 1.—UNDER SIDE OF BELT.

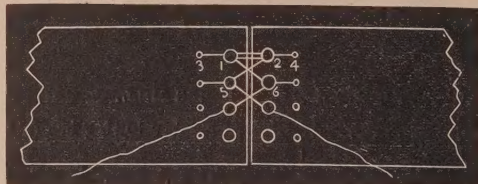


FIG. 2.—TOP SIDE OF BELT.

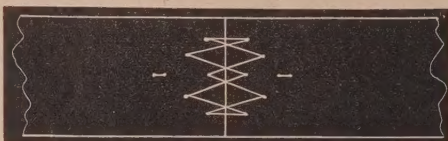


FIG. 3.—OUTSIDE OF THE BELT.



FIG. 4.—THE INSIDE OF THE BELT.

holes three times (an oval punch is the best). In punching the back row use a small punch just large enough to take the lace leather once; if you use a large punch for the back holes it will weaken your belt. This lace does not pull directly on the holes, but by having two rows of holes the lacing forms a clamp on the solid piece between the two rows of holes, and I will wager my head against a goat this style of lace will never tear the holes out. This is splendid lacing for old belts or any belt that has to be strained tight.

"Some master mechanics may think I am off by punching the first row of holes  $\frac{3}{8}$ -inch from the end, but  $\frac{1}{2}$ -inch will do just as well, because, as I said before, the lacing does not pull directly on the holes. Any person glancing at this lacing after it is finished would think it was a double cross, but it is stronger than double cross. The sapping saw that I mentioned in the foregoing squared the blocks for three million and a quarter shingles, and the belt was never touched after being laced in this manner, and I don't know but what is running yet, as the frame could be moved back and forth to tighten the belt. The sketches will show clearly how this joint is made.

"First take lace or whang, any size you desire, pass through hole 1, leaving top strand three inches longer than the bottom strand. Then pass both ends through 2, putting them through same as shoemakers sew, and draw tight. Pass end on under side back through 1, thus leaving both ends on top of belt. Take one end, carry back to 3 (small hole), bring it under belt to and up

through 1 and the other end the same, thus leaving both ends on top again. Now with one end cross over to 5 and up through 6. Take other end, cross over through 6 and up through 5. Then proceed same as first four holes. When the lacing is finished the lacings will be crossed on top side and straight and double on under side."

Another correspondent shows his ideas in Figures 3 and 4. He says: "I have had several years' experience among belts of every description, having put up and kept in repair all the belts in one of our largest agricultural shops, and I have tried all the different laces imaginable, but the most satisfactory lace I have ever used was the old-style 'W' lace, which I suppose is known to almost every user of belts in the country; but for the benefit of those who have never seen it, I'll try to make it clear with a drawing. As you observe, I have my large holes punched in two rows, which makes it superior to belts with the large holes punched in a single row, because it gives the lace a better hold on the ends of the belt. A belt punched according to my drawing, and sewed with a good rawhide lace, will run longer than any other lace I have ever seen."

### ANGUS SMITH ON THE ELEVATOR QUESTION.

"The railroads have increased their capacity ten times over since 1873, and have very largely reduced the transportation charges, beside making storehouses of their cars, and adopting extra facilities for disposing of the grain. The elevator facilities have been more than doubled, viz.: In 1873 we only had storage room then for about 2,500,000, while now we have capacity for over 5,000,000 bushels, and only charge  $\frac{3}{4}$  of a cent per bushel for handling, while in 1873 we handled 32,000,000, for which we received 2 cents per bushel. Still the cry of Mr. Bacon is for a further increase of the storage capacity and further reduction of prices for storing grain. He tries to convince the public that the elevators are paying an enormous profit, and illustrates it by saying that the storage of 4,000,000 bushels at  $2\frac{1}{2}$  cents would alone pay 15 per cent. on the money invested in elevators in Milwaukee. Let us see how much of truth and falsehood there is in this statement. Two and a half cents per bushel on 4,000,000 bushels would give \$100,000 gross income. A low estimate of the value of the elevators and the grounds necessary to handle the cars upon, and the docks necessary to accommodate the vessels while loading the grain, would be \$2,000,000, and the interest on that at 6 per cent. \$120,000. The actual cost for running these elevators, including insurance, taxes, and repairs, is not less than \$80,000. This shows that it is necessary to earn \$210,000 before there is any profit over and above a moderate interest on the money invested. This much I have said in order to show the good citizens of Milwaukee that so far as my connection with the grain trade is concerned I have always done my full share toward building it up, and I think we have furnished all the facilities that the present outlook warrants us in. Before we render our elevators entirely valueless by further reduction of charges, I would like to see Mr. Bacon show some appreciation of what is necessary to bring the business back to Milwaukee by a reduction of his charges as a receiver and commission merchant. His charges remain the same as when we charged 2 cents for handling. He then charged 1 cent per bushel commission. He should not charge one-quarter of a cent per bushel for grain when it goes into elevator under grade, and one-half cent on grain sold by sample."

In conclusion Mr. Smith said: "I think I have demonstrated that the elevator charges can not be further reduced and afford any adequate income for the money invested. If there is any good party of honesty and integrity sufficient to be trusted with the handling of this grain, who thinks that we are making too much money out of it, I think I know of some good elevator property that is for sale at a fair valuation. Keeping constantly in mind the fact that the farmer of this country is compelled to compete with the laborers of India, who are quite well satisfied to work for five cents per day, we must all try and do what we can to help him compete successfully."

The proprietor of a "grain and stock exchange" in Montreal, Can., has been convicted of keeping a "common gambling house."



## TRADE AT PHILADELPHIA.

PHILADELPHIA, Oct. 9, 1886.

*Editor American Elevator and Grain Trade:*—The movement of general trade is fairly active, and a cheerful feeling prevails in business circles. Advice received from different sections in the interior point to progressive improvement in the volume of business, and activity appears to be the rule rather than the exception. The stock market, although feverish and irregular, still reflects the confident feeling that prevails respecting the future prosperity of the country, but speculation in produce is rather tame and featureless, partly by reason of the rapid marketing of the crops, and heavy accumulation of supplies, and partly because of the moderate demand for export. Financial affairs continue in satisfactory shape, loanable funds being readily obtainable on acceptable collateral at the ruling rates of interest, and the banks disposed to pursue a more liberal policy in making loans. The active demand for money and the facility with which capital finds profitable employment is one of the most significant features of the present condition of commercial affairs, for it not only indicates the complete restoration of confidence that has been established, but also is one of the best evidences of the increased volume of business in progress. Just as heavy bank reserves, which are nothing more nor less than an accumulation of idle capital, point to hesitation and uncertainty, so do small reserves and an active loan market indicate the activity of commercial enterprise and the general feeling of stability that causes money to venture into active employment.

The labor troubles of Frankford have assumed such a phase as to arouse public alarm. On the one side are arrayed local assemblies of the Knights of Labor, and on the other there is a combination of Philadelphia manufacturers who employ 75,000 persons. If the difficulty spreads, as it now threatens to do, a condition of affairs such as was witnessed in the South and West early in the year may be looked for. Trade will be paralyzed, and thousands upon thousands of innocent persons will be made to suffer because of the failure of a Frankford manufacturer and his employees to adjust their differences. At present the energy and enterprise of Philadelphia have great odds to contend against in opposing the aggressions of merciless monopolies; and if its industrial life is to be attacked from within by those who are absolutely dependent upon labor for their subsistence, the city can not fail to suffer. The injury will fall not so much upon the capitalists as upon the workmen who will be unable to obtain other similar employment.

The grain trade continues sluggish and unsatisfactory. Wheat prices are  $2\frac{1}{4}$  cents to  $2\frac{3}{8}$  cents per bushel lower as a result of the increasing visible supply and the apathy of foreign buyers. The dullness of trade in the face of accumulating stocks forces the disappointed bull operator to pay more money to transfer his deals into later months than the storage and insurance would cost, or to accept the alternative of carrying the wheat himself. As the average speculator can not afford to do either, a good deal of wheat is passing into the control of a class of operators who derive their profit from the excess of price which they can obtain by selling futures against purchases of the actual grain. This is a weak feature of the situation, as it increases the difficulty of filling foreign orders for prompt delivery, and blocks the free movement of the grain, to the increasing detriment of the market. It matters not to the carrier whether the market goes up or down, as his profit is assured in either event. Exporters report a little better inquiry from the Continent, but hardly any demand worth noting from the United Kingdom.

Corn is very dull, and prices are about two cents per bushel lower in all markets. There is little or no inquiry for export.

Receipts of oats have been liberal, but there has been a steady local trade demand, and prices have undergone but little change.

The market for grain freights has been firm and higher. There has not been a great deal of demand for tonnage, but a fair inquiry has prevailed for vessels to take out wheat, which was sold for export some time ago, and, with a light supply of disengaged tonnage, owners have been endeavoring to dictate their own terms. Three shillings and ninepence is now asked for steamers for prompt loading, but it is doubtful if business would be possible above 3s. 6d. The latter is probably about the views of shippers, though so far as I hear, it is not openly

bid. There is no berth room offering in regular line steamers for Antwerp. Liverpool is held at 4d  $\frac{1}{4}$ .

## GRAIN CHARTERS.

Str. Flowergate, 10,000 qrs. grain, Cork f. o. to arrive, 3s. 6d.  
Str. Harbinger, 10,000 qrs. grain, Cork f. o. to arrive, 3s.  $\frac{7}{8}$ d, option, Baltimore or Newport News.

The following is a list of vessels loading and to load grain:

	Bushels
Str. Flowergate, Cork f. o. ....	80,000
Str. Harbinger, .....	80,000
Str. British Princess, .....	25,000
Str. Edwin, Cork f. o. ....	80,000
Str. Algitha, Cork f. o. ....	80,000
Str. Nederland, Antwerp, .....	45,000
Bark Maria Cassabona, .....	35,000

The following vessels have cleared with grain this week:

	Bushels
Str. British Prince, Liverpool, wheat, .....	25,000
Str. Darien, Antwerp, wheat, .....	122,727
Schr. Susan P. Oliver, D. marara, corn, .....	500

Total, .....

Export of corn since Jan. 1, 1886, .....

Export of corn same time, 1885, .....

Export of wheat since Jan. 1, 1886, .....

Export of wheat same time, 1885, .....

Export of oats since Jan. 1, 1886, .....

Export of oats same time, 1885, .....

J. C. D.



## Issued on Sept. 14, 1886.

FANNING MILL.—Edward F. Reynolds, Bruce, Dak. (No model.) No. 349,235. Filed Nov. 19, 1885.

GRAIN CONVEYOR.—James Nelson, Titusville, Pa. (No model.) No. 349,233. Filed May 25, 1886.

SCREW CONVEYOR FOR GRAIN.—James A. Gowans, Stratford, Ont., Can., assignor of two-thirds to Henry L. Gates, same place, and John M. Duncan, Boston, Mass. (No model.) No. 349,155. Filed March 6, 1886.

GRAIN SILO.—Celestin Engrand, Marseilles, France. (No model.) No. 349,213. Patented in Italy May 12, 1885, XIX, 18,225, and in France Aug. 18, 1885. No. 167,890. Filed Sept. 17, 1885.

## Issued on Sept. 21, 1886.

CAR STARTER.—Oliver P. Wivel, Baltimore, Md. (No model.) No. 349,620. Filed July 28, 1886.

MACHINE FOR HULLING AND GRINDING CORN.—Johann U. Aebi and Jacob Muehlethaler, Burgdorf, Berne, Switzerland. (No model.) No. 349,418. Filed June 2, 1885.

CORN-SHELLER.—Charles A. Williams, Warren, Ind. (No model.) No. 349,553. Filed April 30, 1886.

CONVEYOR FOR GRAIN, ETC.—George A. Gilbert and Ralph Wilcox, Milwaukee, Wis. (No model.) No. 349,390. Filed March 5, 1886.

GRINDING MILL.—Jabez Burns, Brooklyn, N. Y. (No model.) No. 349,628. Filed Dec. 3, 1885.

GRAIN SCALE.—Kasper H. Schaper, Linn's Mills, Mo. (No model.) No. 349,457. Filed Jan. 13, 1886.

AUTOMATIC WEIGHING MECHANISM FOR ELEVATORS, ETC.—Isaac S. Sanger, Waco, Tex. (No model.) No. 349,521. Filed June 10, 1886.

## Issued on Sept. 28, 1886.

BALING PRESS.—George Ertel, Quincy, Ill. (No model.) No. 349,934. Filed April 7, 1886.

CRUSHING AND GRINDING MILL.—Jabez G. Kirker, Louisville, Ky. (No model.) No. 350,064. Filed April 12, 1886.

METHOD OF MAKING ELEVATOR BUCKETS.—Charles C. Scaiff, Allegheny City, Pa. (No model.) No. 349,754. Filed June 17, 1886.

GRAIN WEIGHING AND REGISTERING APPARATUS.—G. Edward Baird, Urbana, Ill. (No model.) No. 349,971. Filed Oct. 15, 1885.

## Issued on Oct. 5, 1886.

CAR STARTER.—David Jennings, Lyons, N. Y. (No model.) No. 350,138. Filed July 17, 1886.

CAR STARTER.—William H. Vail, Cleveland, Ohio. (No model.) No. 350,220. Filed March 6, 1886.

CHAFF GUIDE FOR GRAIN SEPARATORS.—Daniel O. Dockendorf, Sheldon, Iowa. (No model.) No. 350,298. Filed Dec. 26, 1885.

SEPARATOR OR CLEANER.—Alfred Swingle, San Francisco, Cal. (No model.) No. 350,171. Filed Feb. 24, 1886.

## WHEAT AND SILVER.

An address to the wheat-growers of the United States was issued at Washington City, Sept. 5 last, by the Bi-Metallic Coinage Association. Its substance can not be given in any better way than by printing the address entire, which we do below. The silver problem is unquestionably of vast importance to American farmers, all the more so because India, already a competitor in British markets, uses silver only as a currency, and that country is a dependency of Great Britain, which uses gold as the standard, silver being legal tender to the extent of forty shillings only (a little less than ten dollars). Whether the relation between the price of silver and the price of wheat is not overdrawn in the address may be doubted, but every person who has given the subject any intelligent attention is satisfied that to strike silver from our coinage or in any way to discredit our silver money would result in great injury to the people, and especially farmers and laboring people. Here is the address:

What is the price of wheat to-day? What is the result of the year's labor? Look at the market reports. During the year 1885 the average price of a bushel of wheat in the New York market was \$1.07, but it must be remembered that that was but half a crop. All the wheat fields of America produced only 257,000,000 bushels, while in the year 1884 they yielded over 512,000,000. The present crop, the country over, is fairly abundant, but how much money will it bring? It has cost labor; what do you get?

Silver was demonetized in 1873. For ten years previous to that date the average price of a bushel of wheat was \$2.10 9-10; for the ten years following the average price of a bushel of wheat was only \$1.21 8-10. For ten years previous to the demonetization of silver the average price of an ounce of that metal, in the New York market, was \$1.32  $\frac{3}{4}$ ; for the ten years following, its average price was \$1.16 9-10. These figures are official—and they are significant. Any one can verify them in the office of the Librarian of Congress, or by a copy of the "American Almanac" for the current year. At this time an ounce of silver is worth in the market only 93 cents; what is the price of a bushel of wheat? Who can say that he will get a dollar for a single bushel of this year's crop? How many will be glad to get 80 cents? The truth is this: While the silver miners have lost, and are now losing thousands of dollars by the warfare upon silver, the wheat growers have lost, and are losing, millions.

It is the open boast of East India speculators (and we quote their words) that "the effect of the depression of silver must be the ruin of the wheat and cotton industries of America and the development of India as the chief wheat and cotton exporter of the world."

Will you permit it? The re-establishment of the free coinage of silver will prevent it.

A little more than a year ago the National Bi-Metallic Coinage Association was organized for the defense of silver; for the defense of every farmer, miner, laborer, and debtor in America. It has no part in politics. Its motto is: "Equal Rights for Gold and Silver, and Free Coinage for Both." This motto is the spirit of the statutes established by the framers of the constitution, and in force from 1793 to 1873. The President of the Association is Hon. John P. Jones, a Republican United States Senator from the state of Nevada, and its Treasurer is Hon. James B. Grant, a Democratic ex-Governor of the state of Colorado. Composing its National Committee are prominent gentlemen of various political opinions from nearly every state in the Union. Its chief aim has been to inform the people; realizing that when once informed and aroused, the voters of America would so thoroughly agitate the subject as to command the respectful attention and favorable action of their senators and representatives in Congress—and even of the National Executive. It has been said by the gold bugs of the East that we were a band of "Silver Bonanza Kings" from the far West, who came to Washington to "buy votes." This charge contains no word of truth. Since its inception our organization has raised and expended (wholly in the work above described) less than \$16,000. Every dollar has been faithfully accounted for. Its expenditure has been more for the benefit of your interests than for silver miners. We have distributed hundreds of thousands of documents, and the people are just beginning to call for them. They are becoming interested.

We saw the gold mono-metallist forces gather at the



opening of the first session of the forty-ninth Congress, and heard them boast that within thirty days they would secure the entire suspension of silver coinage. We saw them defeated in the House of Representatives—and that on a modified proposition—by a vote of 214 to 98 (counting pairs). And we saw 140 solid votes cast for the free coinage of silver. We are greatly encouraged, but we need money to continue the work. Those who have contributed to this work in the past are willing to do so again, if others, who are sure to reap much the largest share of the profit, will help.

At a meeting of our Executive Committee, held in this city on the 25th day of March last, Hon. John P. Jones, of Nevada; Hon. L. E. Holden, of Ohio; Hon. E. P. Ferry, of Michigan; Hon. W. A. Clark, of Montana, and Mr. M. H. Slater, of Colorado, were appointed a sub-committee to solicit subscriptions. And now, in view of the facts herein set forth, this committee makes this appeal to the wheat-growers of your state to come to our assistance. We ask you to contribute at the rate of one-half a cent for every bushel of wheat you have raised this year. For every 100 bushels of this year's crop you lose, by the warfare upon silver, at least—AT LEAST—\$50. We ask you to contribute for its defense FIFTY CENTS for each 100 bushels. Let farmers club together, or act individually, and send their money—by draft or postal order—to Hon. James B. Grant, Treasurer, Denver, Col., and every dollar will be used for spreading intelligence on the silver question. The fact that Governor Grant was the only Democratic Governor that Colorado ever elected should be a sufficient voucher for his absolute integrity. Every dollar will be judiciously expended and duly accounted for.

We ask you to act as soon as you can conveniently, for we are in need of funds—information should be widely distributed during the present Congressional campaign—but DON'T NEGLECT IT OR FORGET IT. Finally, we respectfully ask you to support for your Representatives in Congress men, of either party, who are pledged to "Equal Rights for Gold and Silver, and Free Coinage for Both."

### A TRANSFER ELEVATOR AT WILTON, IOWA.

The elevator at Wilton, Iowa, commenced last July, has now been completed and is in operation. It is a model house and merits an extended description.

The building is located south of the depot and a few feet northwest of the house owned by Mr. Friday, formerly occupied by Mr. Windus, on the east track which runs through the west side of the building. In size the main building is 36 feet wide by 72 feet long; an engine and scale room is located on the southwest end and is 30x43.5 feet; this latter has 16-foot posts. In height the main building is composed of four feet of foundation stone, seventeen car-loads of stone being used in the foundations about the building. Eighteen feet on top of this is of heavy frame, in which the principal part of the work is done and the most of the machinery located. Above this is 20 feet of cribbing; this cribbing is composed of 2x4 scantling nailed flat one upon the other. This cribbing part forms the bins, these 2x4's forming the outside of the building and also the divisions between the bins, making them strong enough to withstand the immense lateral pressure to which they will be subjected. There are twenty-four bins; sixteen are 8x9 feet in size, 8 are 9x14 feet in size, and all are 20 feet deep. Each bin has a hopper-shaped bottom and a ladder running to the bottom. There are also eight spaces in this cribbing through which the elevator legs extend from the bottom to the top of the building. Upon this cribbing there is a cupola 24x72 feet in size and 16-foot posts which carries the building to the eaves, and 12 feet more to comb of roof makes the entire structure 70 feet high. In the cupola are the elevator heads and spouts. Each elevator is independent of the other and can be thrown in and out of gear from the bottom or operating floor. Motion is communicated to a shaft running the entire length of the cupola by an endless chain belt connected with the main shaft below. By a system of spouts and a conveyor grain can be moved from one end of the elevator to the other, or transferred from one bin to another, with wonderful accuracy and speed by the operator on the lower floor, where indicators and dials unerringly tell what is being done. In this story is located the corn-sheller, manufactured by Barnard & Leas Mfg. Co., Moline, Ill., which has a capacity of 1,000 bushels per hour. It shells and cleans the corn perfectly. The cobs are blown into the coal house and used for fuel.

Having described the upper stories we descend to the lower floor, where the most of the machinery is located and where the operations of the entire building are controlled. In the building erected for the purpose is located the boiler and engine. The former is of 75-horsepower capacity and the latter 60-horse power. This engine is the motive power, and bears the imprint of Atlas Engine Works, Indianapolis, Ind. One of Deane's Duplex Double Acting Steam Pumps supplies the boiler with water and can be operated whether the engine is running or not. The smokestack is 74 feet high by 4x4½ in size. The fly wheel is 9 feet in diameter, upon which a rubber belt 18 inches wide and 66 feet long runs, communicating the power to the main shaft.

In the engine room is located the scale office. The Fairbanks track scale, with a capacity of 81,000 pounds, is properly located so that cars are run upon them when loaded or empty and weighed; a loaded car weighs from 40,000 to 50,000 pounds. A four-ton wagon scale is now being placed on the east side of the main building upon which wagons will be weighed and the local business done.

An ingenious sort of capstan called a car puller, manufactured by G. W. Adams, of Sandwich, Ill., who by the way furnished the machinery and fittings for this house throughout, introduces the car-load of grain to its journey of whirl and tumble. They place the hook on the pulling rope in the car link and throw the puller in gear, and the car is brought in in fine style. After being weighed it is placed in front of the proper hopper and a little machine, the steam shovel, is brought into use and the car unloaded in from 15 to 20 minutes, owing to the ability of the operator to keep up with it. The man who handles this shovel has a little more business than the modern family has with triplets. He pulls the shovel back and as soon as he stops the machine is automatically thrown into gear and goes for the door and the man goes with it. The hoppers into which the grain is dumped are below the floor and communicate with elevators running to the top of the building, which convey the grain to some bin, whither the manager wills, as fast as it is unloaded.

There are five sets of elevators having cups 5x9 inches in size; two sets with 5½x16 inch cups and one set of 7x14 inch cups, making eight sets, each of which is 66 feet from boot to head.

In loading the cars the grain is taken from the bin and by a flexible spout is thrown to either end of the car and the car loaded in about fifteen minutes.

The cleaning machines already in operation are two Giant Grain Separators manufactured by Dickey & Pease, of Racine, Wis., one Barnard & Leas Elevator Separator and one Victor Scourer, Smutter and Separator. All these are dustless machines, the dust and chaff being blown into a long dust spout which communicates with the dust room near the engine, and this with weeds, seeds and dirt of every description, is burned. Mr. Bamber, the architect, will put in a flax machine of his own patent. One more smutter and a large grinder have been ordered and will be placed in position as soon as they arrive.

This elevator was begun July 5, 1886, and will take a month yet before everything is complete, but the 200 cars of grain which has been crowding them demanded attention and the wheels are started as fast as they are ready. Its storing capacity is 41,500 bushels of grain, and it is capable of handling from fifteen to twenty car-loads a day. Its cost is very nearly \$12,000. Over 200,000 feet of lumber was used in its construction, 103 kegs of nails hold it together, 42,700 brick, and seventeen car-loads of stone form its foundations. Stand pipes supplied with water run to the top of the building and fifty feet of hose in the top and bottom stories will protect from fire.

Mr. C. A. Bamber, of Iowa Falls, got up the plans, has made out the bills and superintended the construction from bottom to top.

The firm of Finch & Hayward, who own and operate this elevator, is composed of Wm. Finch and W. C. Hayward, gentlemen who have a vast experience in the grain buying and handling business. They exhibited foresight in locating at that point. There they can receive the corn trade of southeast and western Iowa, and the wheat, flax, barley and oats of northwestern Iowa and Minnesota and Dakota. They have a large number of warehouses along the B., C. R. & N. R. R., and grains are shipped from all points and cleaned, graded and made marketable at this elevator. Some of the shipping is done by billing to Chicago, to be cleaned

in transit; the car is unloaded here and immediately reloaded with cleaned grain.

Mr. E. P. Finch will superintend the work of the elevator, and be the manager of the business.

### OUR DULUTH LETTER.

No new features have shown themselves that lasted long enough to be worth chronicling in the wheat market at this point.

The price has continued, as for the past eight months, to decline, there being a decline of 7½ cents in the November option since my last letter, closing to-day at 71½¢.

The farmers stick to the policy adopted by them at the opening of the season, that of selling their wheat as fast as they are able to get it to the market. They do not propose to be caught again in the same manner, anyhow, that of waiting for higher prices, and for carrying charges, and not realize them.

The demand for our wheat has been exceedingly light, for this season of the year, and the outward movement has therefore been accordingly checked; the exorbitant lake freights asked being, in a great degree, responsible for this; 7 cents has been paid.

Ore freights have been up as high as \$2.75 per ton, which is equal to 7¼ for wheat.

Receipts continue very heavy, [the percentage going: No. 1 hard has been reduced to about 75 per cent., which is very high, and the inspection is as rigid, if not more so, than last season.

The Board of Trade have requested the elevator companies to keep the wheat of the crops of '85-'86 separate, as Eastern buyers frequently designate which they prefer. The elevator companies will accede to the request.

Insurance agents are kept busy hunting up grain insurance.

All the companies represented here have long since exhausted their lines on the elevators, and very little is to be had this side of Chicago.

October deliveries were very heavy, amounting to about 3,000,000 bushels, as near as could be ascertained. It passed mostly into the hands of carriers; the bulk going to Chicago houses, Armour getting a nice "jag."

The inspection rate on weighing "out" has been increased from 25 cents to 40 cents per thousand. The reason given for the advance in the cargo fee, as given, is that the fees do not meet the expenses of the inspection offices. The deficiency comes from Minneapolis and St. Paul, but we have to stand it.

Various receivers had been receiving complaints from their country shippers to the effect that they were unable to obtain cars on the Manitoba Road, being first asked where they proposed sending their wheat; if to Duluth, "no cars;" if to Minneapolis, they could have had.

A communication was sent by our Board to the officials of the road, to ascertain the truth of the matter, and were informed that there was no truth in the statement, but no trouble has been experienced since, anyhow.

The St. Paul and Duluth Elevator Co., George H. Christian, Minneapolis, lessee, have their new elevator of 500,000 bushels capacity under way. It will be an attaché of the present elevator, and will be run by the machinery in the latter.

J. T. Moulton & Son, who have built about all the elevators in Duluth, have received a contract from the Union Improvement and Elevator Co. for a new elevator which will be located 500 feet out in the bay from Elevator "E," and will be reached by an extension of tracks from that house, and will be built on a pile foundation similar to the other elevators, and will be 320 feet long and 96 feet wide, and will have a capacity of one million and a half bushels. It will be so arranged that vessels can be unloaded from both sides, something new here, and will be so placed that the heaviest draft boats can get to both sides. The cost of the elevator, dredging, etc., will approximate \$300,000, and will be used by the Manitoba and Omaha Roads.

The other elevator to be built by the Lake Superior Elevator Co., and its location, have not been decided upon yet.

Duluth, Oct. 11, 1886.

PROBUS.

The Kansas Farmer's crop report for the state says a large acreage of wheat has been sown and that most of it is up and growing well. Corn is not more than 60 per cent. of a full crop, but there is some old corn on hand.



## COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

### PLANS OF SMALL ELEVATORS.

*Editor American Elevator and Grain Trade:*—I have derived a good deal of information and secured a couple of good machines through the illustrated articles in your paper. I believe, however, it would be equally interesting and valuable to your readers to show the plans of different sizes and styles of small elevators. There is a vast difference in the convenience of elevators; and some of us have old houses that might be improved, perhaps at very moderate cost.

Yours truly,

S. C. B.

### WE WOULD, WITH PLEASURE.

*Editor American Elevator and Grain Trade:*—Would you open your columns to a discussion of the question of mutual insurance among elevator men? It seems to me that there is no subject in which the owners of grain houses would take more interest. It hits us all in that tenderest of spots, the pocketbook.

Yours,

ELEVATOR.

### INCORRECT WEIGHTS.

*Editor American Elevator and Grain Trade:*—I am glad to see the subject of shortages receiving so much attention in your paper. It is a subject in which we are all vitally interested, shipper and receiver alike; and the more honest the man is, the more is he financially interested, because, making due allowance for mistakes, there are undoubtedly some who take advantage of this human liability to err, to systematically "err on the safe side." Let the agitation go on, and a system of weighing and weights be devised which will correct the evil which so many are loudly complaining of.

Yours truly,

IOWA.

### THE TRADE IN THE SOUTHWEST.

[Correspondence AMERICAN ELEVATOR AND GRAIN TRADE.]

KANSAS CITY, Mo., Oct. 9.—There have been several schemers about among the elevator men of the city during the past month, trying to make them see the quickest and most certain road to wealth. Yet as the bulk of these fellows did not seem to have reaped very liberally of this world's goods themselves, they succeeded in doing little in this line of aiding the already poverty-stricken elevator men of their few dollars left. Perhaps the most original idea brought out by a would-be genius was that of making an elevator which would automatically weigh the contents so that at a glance the number of bushels of wheat or corn contained therein could be known. The management of one of the elevators who was approached told the agent that he had a system which would enable him at any time to tell what there was in the elevator. On being asked what the system was the owner promptly showed the man his books, wherein were chronicled every bushel of all kinds of grain held by the elevator. With a little less assurance than he started in with the benefactor of the elevator fraternity divulged his idea to be somewhat as follows:

He would construct elevators for the different kinds of grain upon huge scales which should be verified by the proper authorities. When it was desired to take out a car-load all the management would have to do would be to place the weight in the proper notch and let the grain flow until the rod balanced. The best kind of argument did not result in convincing the novice that such an idea would be impracticable. For every objection he had an argument which to him was most convincing. Finally he became imbued with the impression that some one wanted to steal his device and assured his hearer that he had already applied for a patent. The

last heard from the man he was on his way to Chicago, where he declared he would be received with open arms by the dealers at that point.

Another fellow—a Yankee from the good old Bay State—approached some of the members of the Board of Trade who were more or less interested in elevators and were antagonistic to the workings of the southwestern pool, declaring that he was the man who would for a small consideration relieve them from the hardships they were working under by reason of excessive charges. After carefully looking over the ground and experimenting in a small way with forcing grain through wrought-iron pipes, he had discovered a way by means of which all kinds and conditions of grain could be blown from one end of the continent to the other. He contemplated, if sufficient capital were advanced, to construct huge lines of pipes from all the different grain centers of the land. According to him the syndicate who built these iron ways would have a virtual monopoly of the market. Never mind if the snow lay twenty feet deep between the different cities, prompt deliveries could always be made. If all the lakes and rivers in the land were frozen solid with ice the delivery of grain could go on untrammelled by the elements. If to-morrow it were desirable that all the grain from interior points be sent to the seashore to bear the market there, at a few hours' notice the thing could be accomplished. The possibilities of the scheme were boundless, and the poor man was really heart-broken when he discovered that this same feature of transportation had been tried before his time and found not to work, as the wheat or corn at the point of delivery would insist on coming out as flour or meal on account of contusion with the sides of the iron pipe. Probably the same man will be about again within the next year with a patent India rubber affair to obviate the flour and meal tendencies of the iron.

The more reports are received from Kansas the less are the probabilities for as large a supply of wheat from that state as was prophesied a month ago. All elevator men who have been heard from seem to think that in proportion to the yield the wheat berry is fuller and better than ever before in the history of that state. This year, while not showing up well as to quantity, is doing wonders as to quality. Another year will perhaps bring Kansas into prominence as the leading winter wheat state of the world. It is noticeable that each year the husbandmen are learning important facts with reference to the cultivation of this crop. Those farmers who are willing to rest on their oars, believing that there is nothing more to learn about the mode of raising fine wheat, are bound to take a back seat as compared to those who are constantly studying and using the best implements and the best seed.

It has been a source of wonderment to many men who have not considered the matter that so many small elevators should have been constructed within the confines of Kansas during a year when there was no possibility of filling them. These men do not look ahead and see that it is the future and not the present that these far-sighted capitalists are looking to. It is considered next to impossible that next year will yield poor crops. Such is contrary to all precedent in the annals of that state. This is the reason that the elevator men are at work. They recognize the fact that they can get the necessary machinery and material at a less cost than during a season when large crops are the rule. They know that in order to attract trade the fact must be known to the farmers in the different sections just where they can market their grain to the best advantage, and it is proposed by these energetic business men to be on the alert for all the trade which they can command. To be sure, many of these elevators will not more than pay expenses this year, but the probabilities are that before the close of another year they will be richly repaid for their forethought. It is a mistake also to believe, as many seem to, that the bulk of the elevator owners in the smaller towns will not pay expenses. The opposite is the fact. "He who laughs last, laughs best."

The elevators at interior points at present contain less wheat than for a long time, if all reports are to be credited. During the past month the weather has been exceptionally fine for farmers to carry on their out of door occupations of the farm, and comparatively few of them have tried to market their wheat. The low run of prices has tempted them also to hang off in the deliveries as long as possible and until a better tone to the market is had there is little prospect of receipts throughout the winter-wheat centers being more than medium.

The following grades of grain are at present held by

the local elevators. A comparison is made with last year so as to give a better idea of the offerings:

	1886, bush.	1885, bush.
No. 2 red winter wheat.....	105,157	330,188
No. 3 red winter wheat.....	89,800	121,965
No. 2 soft winter wheat.....	82,657	116,434
No. 3 soft winter wheat.....	76,481	48,358
No. 2 hard.....	720	
No. 4 red wheat.....	63,292	49,376
Rejected.....	23,247	29,516
Screenings.....	1,170	
No grade.....	27,493	
No. 2 spring wheat.....	171,170	42,980
No. 3 corn.....	6,410	6,506
No. 4 corn.....	1,646	4,399
No. 2 white corn.....	15,081	8,408
High mixed.....	1,923	1,598
No grade corn.....	468	
No. 2 oats.....	39,344	12,272
Rejected oats.....	7,369	
No grade oats.....	970	
No. 2 rye.....	3,972	362
Rejected rye.....	600	450
No grade rye.....	648	

The above speaks for itself. It will be observed that the amount of No. 3 soft winter wheat is greatly in excess of that at the corresponding time last year. The same holds true to a less extent with reference to red winter wheat. The reason for this, as above intimated, is because the new crop has not been fairly floated as yet. Probably a couple of months will tell an entirely different tale. Another point which adds to the significance of the above is the fact that the millers insist on keeping the better class of wheat from accumulating, while they pass the lower grades by.

The past month opened with prices of wheat, No. 2 red, at 62½ cents and closed with the same price asked. The variations have been less than noted in these letters for many months. It is said by those who pretend to know that there will be a very material rise within the near future, but these same have prophesied the like for several weeks, and there is no sign of it as yet. The fact is that nobody has any idea of the future of the market. No. 2 soft went up a few points during the month from 66¼ to 67¼ cents. The latter figure represents the highest price of the month, which was obtained yesterday. Corn has gone down as to price. No. 2 opened with sales at 32½ and closed with the same bringing but 30 cents, with trading dull at the latter quotation. The lowest point reached during the month was on the fourth inst., when 29 cents was gotten. No. 2 white also suffered a decline from 33¼ to 31½ cents, 1¼ cents. During the month there have been 391,981 bushels of wheat received at the elevators, 49,859 bushels of corn, 78,813 bushels of oats and 3,990 bushels of rye. During the corresponding date last year there was not one-third the wheat received, about twice the amount of corn and one-sixth the oats. Therefore it can be readily understood that the elevator men have not half the reason to complain of dullness that they had last year at the corresponding time.

### THE ILLINOIS GRAIN DEALERS.

The Illinois Grain Dealers and Shippers' Association, holding a meeting at Springfield, Ill., Oct. 12 and 13, adopted a resolution favoring state inspection of grain at East St. Louis. The meeting also expressed a demand for greater responsibility of the railroads in regard to hauling grain, it being claimed shippers sometimes suffer serious loss in weight and measure on account of the bad condition of cars in which hauls are made. A committee of five was appointed to prepare and present to the General Assembly a bill embodying such legislation as is demanded by the association.

A dispatch from New York says: "A question of considerable importance to members of the grain trade at the Produce Exchange is asked many times every day in about this form: 'What are we to do with our grain?' Some of the grain warehousemen of this port have given notice to receivers that they find themselves compelled to require formal notice before they can receive or discharge grain from store. The capacity of the several warehouses in this city, Brooklyn and Jersey City is 20,950,000 bushels, and there is about 14,000,000 bushels in them now. Franklin Edson, chairman of the Grain Committee, said: 'I don't think that there is a greater movement of grain to the Atlantic seaboard than is usual at this season of the year, but the trouble is that it is not going out so fast. The foreign demand would be stronger were it not for the fact that there is a scarcity of ocean steam room, much of the steam freight being employed in moving cotton, which is paying better than grain can pay. Then again the steam rates are so stiff that the foreign demand has been checked.'"



## MECHANICAL DETAILS OF DOW'S STORES, AT BROOKLYN, N. Y.

Among the numerous storage warehouses and grain elevators that line the Brooklyn water front, opposite New York City, receiving grain from the West in barges through the Erie Canal and Hudson River, Dow's stores at South Ferry stands prominent. It was designed especially to include rapid transfer and handling of grain, with large storage capacity. It consists of a brick building 600 feet in length by 100 feet in width, surmounted by three towers, and connected with a bridge extending for 600 feet along the pier.

The engine and boiler houses are separate from the main building; the former is 94 feet long, 43 feet wide, and 25 feet high, built entirely of brick, the roof supported on iron beams. The chimney is 14 feet 8 inches square at the base, resting upon a masonry foundation, under which are 225 piles, and surmounted with a cast-iron cap at a height of 175 feet. The ten boilers are arranged in one line through the building in groups of five each, set in a foundation of brick and masonry supported by 184 piles. They are of the return tubular pattern, 15 feet long, 5 feet diameter, each containing sixty-six 3-inch tubes. A brick flue at the back connects with each, leading into the chimney. They are fed with two small duplex pumps, and two injectors. In front of the chimney, between the groups of boilers, stands a large compound duplex pump, which, with a similar one in the engine room, forms the fire service of the elevator. Water pipes connect with every part of the house, and one pump is in constant operation, causing a circulation through them. These pumps are capable of throwing six streams of water over the towers at once. Steam is collected from the boilers and conveyed to the engines through a 12-inch wrought-iron pipe.

The engine-house adjoins the boiler house, its upper part connecting with the main building. On its river side are the company's offices. It is 50 feet square and 148 feet high, divided into nine stories, secured and braced above the engine room by twenty-eight vertical lines of posts. A hydraulic passenger elevator, passing up through one corner of the engine house, affords access to its upper stories, to the roof of the stores, and to the three towers upon it. The engine room is 28 feet high, its ceiling supported by iron columns. There are two simple condensing engines of 28 inches diameter of cylinder and 48 inches stroke, with four fly-wheels 18 feet diameter and 48 inches face, turning at 90 revolutions per minute. The air pumps are worked by a separate engine, the cylinder of which is 12 inches diameter and 16 inches stroke, with two flywheels 7 feet in diameter. These engines are raised on brick and granite foundations seven feet above the floor, at which level an iron grating covers the room, thus permitting all the pipes and connections under the engines to be easily examined and kept in order. The engine room is connected with every part of the building by telephones, and an electric annunciator of fifty bells, and the signal arrangements throughout the house, are of the most perfect description. The engines work at about 85 pounds pressure, giving 1,170 indicated horse power. They may be used separately or together. From the flywheels four seven-ply Para rubber belts are carried vertically through the house, passing over 5-foot idler pulleys on the second floor, which form the stretchers for them. One belt turns a shaft carrying a wire rope sheave, on the third floor, giving power to store No. 5, through another sheave, connected by a wire rope on the outer store wall. The other three belts go to the top floor of the engine house, there passing over 11-foot pulleys, whose centers are 105 feet above the engine centers. These turn 8-inch hammered iron shafts which extend through the engine house and along an iron trestle built over the roof of the store No. 7, a distance of about twenty feet, the shafts decreasing gradually in size from the driving pulleys. On these shafts there are six wire rope sheaves 13 feet in diameter, making 150 turns a minute, carrying wire ropes  $\frac{3}{4}$  inch in diameter for the transmission of power; two of these go to tower No. 5, two to tower No. 2, and the remaining pair to the dock tower. Owing to its close proximity to the trestle, tower No. 8 is connected by belts passing through a light bridge. The main countershafts are in sections, connected by friction clutches, which permit the sheaves to be used separately, and the method of coupling is so perfect that the engines may attain half speed, and then all the machinery be thrown into gear without undue strain upon the shafts.

The main building is divided into nine compartments

or stores, 66 feet 8½ inches by 100 feet, separated by heavy partition walls of brick, the only communication between them being the openings for the passage of conveyor belts; these are closed by heavy cast-iron doors, held up by ropes, which, in the event of fire, would drop and protect the openings. The floors are of concrete; the doors and windows guarded by iron shutters. Six lines of grain-conveying belts run through the entire length of the stores, power being applied to them in the centre store, No. 5, from the wire rope gear previously mentioned; the belts run in either direction at will. To support the bins in each store twenty-eight piers of masonry are built on groups of piles—twelve under each—on which stand 14x14-inch posts, in four rows, each post lagged by four 8x14-inch timbers, these latter diverging at an angle of about 60 degrees near the top, forming braces. At a height of twenty feet these posts and braces support girders, crossing the stores in both directions; on these rest the bins. From these posts, others 9x9 inch pass up through the corners of the bin, to which they are secured by iron bands, remaining unaffected by the vertical movement of the bin stuff from shrinkage, and sustain the roof and towers above. The bins are 12 feet square and 52 feet deep, built up of 2x5-inch planed boards, the walls decreasing in thickness toward the top to 5x4-inch. There are forty bins in each store, 360 in all, every one being used for storage; through eight the lofters pass, and some are divided horizontally for shipping bins; 100 are subdivided, and used for special purposes. Ladders are built in their corners, and over them are platforms and gangways for the convenience of the men working above; 5,000,000 feet (b. m.) of spruce were used in their construction. The bottoms incline to valves in the centres, from which hang movable spouts through which the grain is delivered to the conveyor belts on the floor, the lower one being placed in a small portable hopper over the belt.

On the main building three towers are placed above stores Nos. 2, 5, and 8 respectively, the first being larger than the others, its base measuring 72 feet in width by 65 feet in length, the sides tapering to the roof, which is 53x32 feet. Towers No. 5 and No. 8 measure at the base 62 feet in width by 47 feet in length; at the roof 32x28 feet. On the corner posts of the bins are laid stringers carrying cast-iron bases to which are secured the lower ends of the framework of the towers. This frame is formed principally of channel irons, thoroughly braced and secured, the floors being supported by upright latted posts and cross I beams. The framework is covered with wood sheathed on the outside with tin. Fire ladders ascend to the top of each tower, with balconies and stand-pipes at the windows. The first floor of tower No. 2 contains the two cleaners and their blowers; the second, the main countershafts and wire rope sheaves; the third, the garners under the scales and the spouting platforms; the fourth, the weighing machines, and the top floor the lofters heads. The towers are 102 feet high above the bins. On each side of the tower No. 2 are two 13-foot diameter wire rope sheaves, supported on a frame of 14x14-inch timber, secured to the iron framework of the building. They receive cables directly from the trestle, a span of 320 feet, one of each set giving motion to the tower's machinery, the other connected by a countershaft to a third sheave of same size, on each side, carrying the dock tower cables over a span of 328 feet. Four "lofters" or elevating tubes, 176 feet long, rise from the ground floor of the building to the top of the tower, their bases resting in water-tight iron tanks eight feet below the floor level, the tanks being surrounded by the masonry of the piers, and each supported on six piles. Grain is thrown into the hoppers in the tanks from the conveyor belts, entering the lofters by suitable valves. Above the hoppers and machines for throwing the grain off the belts, is a long platform to which signal wires converge, where these machines are worked, and the flow of grain into the lofters directed. The narrow sides of the lofters are of wood, the wide of plate iron, the elevating belts are of five-ply rubber, 24 inches wide, and on them heavy tin buckets 23 inches long, 8 inches wide, and 6 inches deep, are bolted fourteen inches apart. This bucket belt passes around a drum 30 inches in diameter, arranged with a stretcher in the foot of the lofters; and over a pulley 5 feet 6 inches in diameter at its head; this latter turns on a short movable shaft which can be raised or lowered by suitable levers. Directly beneath it is a paper pulley composed of discs of paper built up under 700 tons pressure, the ends secured by heavy caps and steel bolts; this revolves on the main countershaft, which passes through all the lofters heads, they being ar-

ranged in line with it. By lowering the upper pulley carrying the bucket belt, motion is imparted to it by friction with the paper pulley. Besides the four long lofters, there are four short ones, whose bases are placed upon the stringers above the bins, with wooden receiving hoppers built up around them, these being used for relifting grain that has descended through the weighing and cleaning machines. In towers Nos. 5 and 8 there are two long and two short lofters of similar dimensions and arrangement to those already described. From the lofters heads swinging iron spouts lead into receiving hoppers under which the four weighing machines stand in line along the weighmaster's platform. The weighing hoppers are of wood, square, with inclined bottoms, each containing 200 bushels; the surplus grain is held by the hopper above, and a similar one below, during the adjustment of weight.

[TO BE CONTINUED.]

## THE AGRICULTURAL DEPARTMENT'S CROP REPORT.

The report of the Department of Agriculture for October gives local estimates of yield per acre of small grains, with condition of corn, potatoes, and other late crops. The results corroborate the previous returns of wheat; confirming expectations of slight increase from the first records of thrashing without making any very material addition to the crop aggregate. The average yield upon an area of fully 37,000,000 acres, appears to be close to 12¼ bushels per acre, making the crop of an average of a series of years. The area actually harvested is now the principal object of exact determination. The result will vary little from an increase of 100,000,000 over the crop of last year. The state averages of principal states are: New York, 17 bushels; Pennsylvania, 13; Kentucky, 11.5; Ohio, 15.5; Michigan, 16.3; Indiana, 15.1; Illinois, 13.1; Wisconsin, 12.3; Minnesota, 12.6; Iowa, 12.5; Missouri, 12.5; Kansas, 11.5; Nebraska, 9.5; Dakota, 10.5; California, 11.5; Oregon, 12.5.

### OTHER SMALL GRAIN.

The average yield per acre for oats is 26.6 bushels, making a crop of over 600,000,000 bushels. The Ohio Valley averages over 30 bushels per acre, Iowa over 34 bushels, with lower yields in Missouri, Kansas, and the Southern states. The Eastern states have high yields.

The barley crop averages 22.4 bushels per acre, and the product will come nearly up to 60,000,000 bushels.

The average yield of the rye crop is 11.8 bushels per acre, and the product over 26,000,000 bushels.

### CORN.

The high temperature of September and absence of frost have improved the corn crop prospects and made the expectation 22 bushels per acre, and rendered certain a crop of at least 1,650,000 bushels.

The final averages of condition of the seven states which produce seven-tenths of the crop are: Ohio, 90; Indiana, 93; Illinois, 74; Iowa, 78; Missouri, 68; Kansas, 65; Nebraska, 73. Averages of the Eastern states are above 90, and those of the Southern states mostly between 80 and 90. The general average is nearly 80, against 95 last year, when the crop was 26.5 bushels.

The general average of the October condition of potatoes is 81, against 82 last year, 88 in 1884, and 93 in 1883. The average of New York is 90; Pennsylvania, 84; Virginia, 93; Ohio, 89; Michigan, 71; Indiana, 87; Illinois, 70; Iowa, 59; Missouri, 72; Kansas, 63.

The tobacco average condition is nearly 86; Kentucky, 92; Tennessee, 90; North Carolina, 80; Virginia, 77; Maryland, 75. Cigar tobacco averages high, except in Wisconsin.

The promise of buckwheat is for a crop slightly under average. Condition in New York and Pennsylvania, 87, which is nearly the general average.

Chicago elevators contained on Saturday, Oct. 9, 8,883,416 bushels of wheat, 4,758,669 bushels of corn, 1,115,406 bushels of oats, 165,058 bushels of rye and 713,347 bushels of barley; total, 15,635,896 bushels of all kinds of grain, against 13,529,392 bushels a year ago. For the same date the secretary of the Chicago Board of Trade states the visible supply of grain in the United States and Canada as 52,787,293 bushels of wheat, 13,577,853 bushels of corn, 4,994,989 bushels of oats, 540,092 bushels of rye, and 1,808,362 bushels of barley. These figures are larger than the corresponding ones a week ago by 1,566,915 in wheat and 182,465 in corn. The visible supply of wheat for the corresponding week a year ago increased 1,576,100 bushels.





Edw. P. Allis & Co., Milwaukee, are busy in all their departments.

The Link-Belt Machinery Co., of this city, had a fine exhibit at the Chicago Industrial Exposition.

The Straub Machinery Co., Cincinnati, Ohio, write us under date of Sept. 24: "Orders are coming in rapidly."

The Williams & Orton Mfg. Co., Sterling, Ill., write us: "Our sales of the Charter Gas Engine are greater than our present capacity."

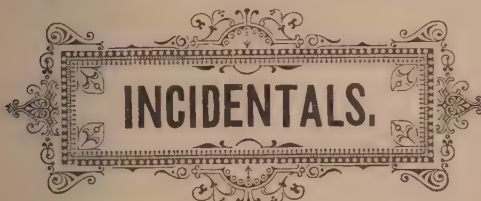
M. F. Seeley, of Seeley, Son & Co., Fremont, Neb., called on one of his flying trips, and gave the same good report of elevator building as usual.

The Frost Mfg. Co., of Galesburg, Ill., are putting into the elevators they are building a large number of Giant Grain Separators, manufactured by Dickey & Pease, of Racine, Wis.

It shows the widespread use of American machinery when a floating elevator (the one illustrated on our first page), built in England for use in France, uses Barnard & Leas machinery and the Ewart Chain.

Jerusalem! Our export trade is growing. We just learn that the Cincinnati Corrugating Co. have recently made a large shipment of their corrugated iron siding and packed standing seam roofing to the sacred City of Jerusalem, Palestine, Asia. Has some Yankee taken the contract to "boom the old town," or is the temple to be rebuilt? The C. C. Co. have reason to rejoice over this additional testimony of the appreciation of their manufactures, which is now become universal.

The following sales of boilers by the Babcock & Wilcox Co., for the month of September, scattered all over the country, indicate that business, in their line at any rate, is in good shape: N. R. S. Yewell, Philadelphia, 108 H.P.; Iowa Barb Wire Co., Allentown, Pa., 634 H.P.; New Jersey Iron Mining Co., Dover, N. J., 146 H.P.; Lehigh Coal and Navigation Co., Philadelphia, 208 H.P.; R. M. McCulloch, Cuba, 104 H.P.; Metropolitan Street Railway Co., Kansas City, 600 H.P.; J. H. Steinbergh & Son, Philadelphia, 82 H.P.; Old Dominion Steel Co., Richmond, Va., 184 H.P.; Mosle Bros., New York, for export to Cuba, 240 H.P. and 120 H.P.; Kansas City Electric Light Co., Kansas City, 127 H.P.; Standard Oil Co., New York, 416 H.P.; Department of Docks, New York City, 15 H.P.; Thos. E. Lutner, Philadelphia, 20 H.P.; East River Gas Light Co., Long Island City, 51 H.P.; making a total of over 3,600 H. P. for the month.



Cornstalks measuring sixteen feet in length, it is said, are common in Owen county, Ky.

At Reading, Pa., a cornstalk was exhibited recently bearing thirteen well-developed ears.

John and Albert Kane, of Center, Iowa, have raised sixty-six bushels of barley per acre this season.

Thirty Indians lately drove into Mandan, Dak., with loads of wheat. They are said to succeed in wheat culture quite as well as their white neighbors.

The nominee of the United Labor party for Congress from the Fourth Illinois District is Samuel J. Hawkins, one of the Link-Belt Machinery Co.'s foremen.

The St. Anthony Elevator, at Minneapolis, is expected to receive wheat on the 15th inst. Its capacity is 2,500,000 bushels, and it ranks among the very largest houses in the world.

The Duluth elevators must be crowded with grain. Hardly a day has passed in the last ten days that in which all our local companies were not solicited to write on grain in some one or all of them. Every company

that will write these risks has all that it will hold. Some persons call this underground insurance, but Duluth grain men are glad to get Cincinnati policies.—*Cincinnati Price-Current*.

Some of that "rotten" wheat shipped out of Milwaukee graded No. 2 and weighed 61 pounds to the bushel. It was said to be as fine a sample of wheat as was ever shipped from Milwaukee.

With cash wheat at 69½ cents, and November at 71½ cents, the lowest figures of yesterday, the commodity may be said to be lower now than at any time within the past twenty-five years. Once in 1884 cash wheat touched 69½c., but the difference in storage charges now would more than make up for the three-eighths difference.—*Herald*.

Colorado has 800 miles of first-class irrigating canals, 3,500 miles of secondary canals, and 40,000 miles of smaller ditches, which have cost in the aggregate about \$11,000,000, and will irrigate 2,200,000 acres. The operation of this great water system has developed conflicting claims of various ditch companies in regard to the use of the water, which it is very difficult to settle.

The following is the official statement of the visible supply of grain in store and afloat on Oct. 9, issued by the New York Produce Exchange: Wheat, 52,787,435 bushels, an increase of 1,567,083 bushels; corn, 13,577,642 bushels, an increase of 152,612 bushels; oats, 4,995,446 bushels, an increase of 30,441 bushels; rye, 539,678 bushels, an increase of 21,344 bushels; barley, 1,807,721 bushels, an increase of 257,642 bushels.

Wm. Troyer, of Dorchester, Neb., writes the *Journal*, of this city: "I saw a statement in the *Journal* of Sept. 15 that two boys had been smothered in the grain bin of an elevator. Such accidents can be prevented by simply suspending a small rope over the center of each bin, as the grain will force the rope to the center. Any person with presence of mind would grab the rope. There should be a law compelling owners of elevators to put in such protection."

A Buffalo grain man addresses the following communication to a city paper: "I have received circular after circular from the Chicago Board of Trade for weeks, saying: 'Buy wheat and corn. Values are low enough, etc.,' yet there has been a steady daily decline. A circular received to-day says: 'The decline is over, buy largely, for there will be an advance soon; get on and ride up.' To this I say get on and ride down. It's a long way to station sixty-five, but I firmly believe your cash wheat will arrive there in immense quantities, and buyers will not be numerous. If wheat is worth 80 cents and corn 45 cents there would be buyers for the stuff at those prices. The facts are there is no scarcity. Crops pan out abundantly, foreign countries have all they want, and they will buy here only at a very low price, and then it has been sold before purchases have been made here. I believe it absolutely unsafe to buy wheat and corn at present prices, but I do believe you will make a barrel of money if you will sell any option that is over 75 cents on wheat and 38 cents on corn, if you will stay by it. Tell me I am no prophet if my predictions do not come true. It is all well enough to attribute low prices to failures, Canadian skippers and scarcity of ocean tonnage, but the cold facts are that God Almighty failed to produce a short crop, and that's what's the matter."

A trader, referring to the interview with the "awful bull," in Saturday's *Daily Business*, says: "I am willing to admit that wheat is selling from 5c. to 10c. below the cost of production, and that the agricultural portions of Minnesota and Dakota are plastered with mortgages, yet I am not a bull. I am also willing to concede that wheat may advance enough to make up the difference between the present prices and cost of production, but the mere fact that farmers are obliged to sell their wheat for what it will bring, in order to save their farms from the mortgage sharps, has produced such a glut that recovery must be laborious and gradual, and at most the advance from now until spring will hardly be more than enough to pay carrying charges. If our merchant could buy all this bankrupt stock of wheat, and could own his own warehouses, he might make a good thing of it, but where the property is held by thousands who begin to lose money from the start, and who are only too willing to sell out on a bulge that may give them a chance to get even or nearly even, the market is not alluring. Nevertheless, when the foreigners have eaten up their wheat and begin to look around in dead earnest for sup-

plies, we may see a boom that will knock my calculations endwise. Such a revolution may occur, and if it does, all the bears in Christendom can't stop it. The more they sell, the worse off they will be."—*Daily Business*.

## RUSSIA'S GREAT CANAL.

The *Moscow Gazette* says that the project of connecting the White Sea and Lake Onega by means of a canal will be realized much sooner than was expected. The Zemstvo of Olonetz petitioned last year in favor of the immediate expropriation of the necessary lands and voted an advance of 15,000 rubles for that purpose, and the Ministry of Lines of Communication has now contributed 13,500 rubles to the same object. The total cost of the work is estimated at 7,000,000 rubles. The length of the canal will be fifty-six versts, the terminal points being the village of Soumy, in the Bay of Onega, and Povenatz, near Lake Onega. The waters of various lakes and streams in the adjoining regions are to be utilized. This new waterway is especially indispensable for supplying Northern Russia with corn and promoting commerce between the inhabitants and the Norwegians. Hitherto communication has been closed with St. Petersburg for five months in the year, a condition of isolation that the canal is intended in large measure to remedy. The country to be traversed contains such large and dense forests that a million of trees may be cut down annually without infringing the rules of scientific forestry. Facilities will be afforded for exploiting the rich mines of Olonetz, a matter of great importance for the manufacturers of St. Petersburg, who are now obliged to buy their raw material from the foreigner. The navigation and fisheries of Olonetz and the White Sea will also be greatly benefited by this connecting line with the South. At present the cost of transport for goods from Archangel to St. Petersburg is 1 ruble per pound (36 pounds); by the opening of the canal the rate will be reduced to 40 copecks. Two other projects are spoken of for uniting the Northern provinces with the more fertile regions of Middle Russia. One of these is the junction of the Dwina with the Viatka, an affluent of the Volga; the other that of the Kama with the Vytchegda, in the direction of the canal, now abandoned, called Catherine of the North. On the other hand, the Department of Railways is charged to estimate the cost of lines of junction between Archangel and the Northern system, this port being destined as the entrepot of Siberian products. It is contemplated to prolong the Louniew line in the direction of the Dwina, and also to connect the beds of the Kama and the Vytchegda. In both cases the construction would be on a cheap and simple plan adapted to the light traffic of these thinly-peopled regions.

## "LIBERAL" GRADES.

The clamor for "liberal" grades is sure to be heard wherever there is a large wheat market and a uniform system of inspection. The Northwest has heard it frequently but has refused to give way. They have heard it and yielded more or less in Milwaukee and Chicago, and the result is the accumulation in the elevators of a lot of old wheat which has to be sold for what it will bring. Milwaukee has been, apparently, the heaviest sufferer by a system of lax inspection. It is reported that the product of Chicago mixing houses has been accepted as full market grade although it really fell far below the average. On the basis of a stock of such stuff the business of speculative buying and selling has been carried on until at last, when it became necessary to actually market the grain, it had to be sold for what it really was. The result is bad, not merely from a pecuniary point of view, but it is equivalent to the breaking down or discrediting of a great market. Like the adulteration of wares by a merchant formerly in reputable standing, it inflicts an injury on general business which years cannot repair. Chicago, which has little reason to revile Milwaukee, as far as the mixing business is concerned, has the following to say about it: "If Milwaukee could have continued to draw good wheat freely from the Northwest the two might have mingled to form a good average. But Duluth and Minneapolis have become absorbents of the one, and left the other to stand nearly alone. In such a case its merits are now telling with great force, and furnish a crying argument against the folly of letting down grades in order to accommodate the men who want to scalp a living out of the property of others." The admission is a just one. The fields of the Northwest produce the finest quality of wheat known to the markets of the world. The milling interest of the Northwest has created a demand and a market at home for this grain, and assured the farmer a higher price in his own state than can be had at Chicago or Milwaukee. Finally, a system of stable and honest grading, in spite of the efforts of the mixing houses and the cry for "liberality," have given the grain of the Northwest a standing and character that are unimpeachable all over the world. We have in this particular to-day an enormous advantage. Let us keep it by holding to a high and rigid system of grading and inspection.—*Pioneer Press*.

The largest sale of barley by sample ever made in the West was consummated the other day in Winona, Minn., by H. J. O'Neill, who sold 190,000 bushels of the grain to a Baltimore (Md.) maltster firm.





Bennett, Neb., wants an elevator and a mill.

Weiser & Co., brewers, of Shasta, Cal., have dissolved.

Henry Danner, a brewer of Jamestown, Dak., has sold out.

G. B. Seikel, grain dealer, of Logan, Iowa, has sold out.

P. H. McHale is building an elevator at St. Mary's, Kan.

D. H. Bates, grain merchant, of Wessington, Dak., has sold out.

Roy & Co., grain dealers of Park City, Utah, have sold out.

J. B. Belohradsky, brewer, of San Antonio, Tex., has assigned.

Roesch & Arnold, brewers, of La Grande, Ore., have dissolved.

Hudson & Heartt, grain dealers, of Miller, Dak., are closing out.

E. H. Partch & Sons, Elkader, Iowa, are building a new elevator.

G. S. Barnes & Co., grain merchants, of Duluth, Minn., have dissolved.

Besse & Marston, grain dealers, of Watsonville, Cal., have dissolved.

Grain buyers in Yankton, Dak., are paying out \$2,000 a day for wheat.

Salisbury & Graham have leased the Gaskill elevator at Hiawatha, Kan.

The Des Moines Grain and Hay Company, Des Moines, Iowa, have sold out.

Four new elevators will be built in Duluth, Minn., during the coming year.

Ottosen & Hill, grain dealers of Badger, Iowa, are succeeded by O. Ottosen.

The Upham Mfg. Co., of Mansfield, Wis., is building a 30,000-bushel elevator.

Leddell, Hawkes & Co. have opened a grain receiving business at Duluth, Minn.

Walter Bros., grain and stock dealers, of Correctionville, Iowa, have sold out.

William Selover & Co., grain commission merchants, of this city, have suspended.

W. S. Fifield & Co., hay and grain dealers, of Providence, R. I., have dissolved.

Brewer & Wilkins, grain commission merchants, of Boston, Mass., have dissolved.

Greenleaf, Baker & Co., of Bloomington, Kan., are about to enlarge their elevator.

A receiver has been appointed for Clugston & Hughes, grain dealers of Ashland, Ohio.

Bellas, Patton & Co., grain and commission merchants, of Chicago, Ill., have dissolved.

Reitan & Christianson, of Grove City, Minn., have sold their elevator at that place.

The "Wharton Flour Mills," Birmingham, Ala., contemplate erecting a grain elevator.

J. W. Bagby, grain and flour dealer, of Salinas, Cal., is succeeded by James Baumberger.

R. G. McCullough, grain and lumber dealer, of Hanna City, Ill., has sold out to E. P. Yinger.

The Beck-Magnus Brewing Co., Buffalo, N. Y., has been incorporated under the same style.

J. J. Botter, Mobile, Ala., is reported as organizing a company to build a large grain elevator.

Lockhart & Son are putting up an elevator in the old McIntosh storehouse, at Newcastle, Ont.

Geo. Heck & Co., grain commission merchants, of New Orleans, La., are succeeded by Geo. Heck.

The Beyschlag Brewery, in Nebraska City, Neb., is to be enlarged and its capacity to be doubled.

The Montana Valley Live Stock Company will build a 50,000-bushel elevator at West St. Paul, Minn.

Up to Oct. 5, Letcher, Dak., had received as much grain as was received in the whole of last season.

Clark Bros., grain dealers of High Hill, Mo., have dissolved. The firm is continued by William Clark.

Arthur G. Bennett has retired from the grain commission firm of Farnum, Reardon & Co., Boston, Mass.

Mr. Watson, of Whitby, Ont., has purchased the Christian elevator, at Manchester, Ont., for the sum of \$2,530.

It is said that Armour & Co., of Chicago, Ill., will erect a large warehouse and grain elevator at Birmingham, Ala.

The Ernst Tossetti Brewing Company, Chicago, Ill., will erect a brewery on Bissell street at a cost of \$100,000.

The St. Paul & Duluth Elevator Company has decided to erect a third elevator in Duluth at once. It will have a capacity for 500,000 bushels, and will increase

the storage capacity of the company to 1,050,000 bushels.

A 25,000-bushel elevator will be built at Cresco, Neb., a new town on the Elkhorn Valley extension to Lincoln.

The first corn of the new crop was sold at Baltimore, Md., Oct. 2. It was in good condition and brought 50 cents.

H. M. Oliver, of the grain firm of H. M. Oliver & Co., of Glenville, Neb., has sold his interest to William Baker.

A. A. Dewey, a commission merchant of this city, has failed. He was long on wheat, but his liabilities were not large.

More than 3,000 car loads of grain have left the "Midland Elevator," at Collingwood, Ont., since the opening of navigation.

The Winona Elevator Company, Winona, Minn., have been handling of late, on an average, thirty-five cars of barley per day.

D. W. Bailey, late of Sioux Falls, Dak., has taken charge of the L. C. Porter Milling Company's elevator at Aberdeen, Dak.

The town of Wolseley, Assiniboine, N. W. T., Can., offers a bonus of \$6,000 for a 75-barrel mill and a 20,000-bushel elevator.

H. F. Warnecke, of Correctionville, Iowa, has sold his grain and implements business to T. W. Kissinger, to take effect Oct. 25.

Buehrig, Iwrig & Co., of Minier, Ill., have completed their new grain elevator. They have put in a fan mill of their own invention.

Two new elevators are being erected at Hutchinson, Minn., one by Strong & Miller, of Minneapolis, and the other by Ehle & Sievers, of Glencoe.

Van Dusen & Co. have been improving their warehouse at Waseca, Minn., turning it into an elevator, and enlarging its capacity for business.

The grain firm of Geo. W. Phillips & Co., of this city, has dissolved, and Mr. Phillips has become associated with the house of G. S. Everingham & Co.

At Burlington, Iowa, the Winfield Mill and Elevator Company has been incorporated with a capital stock of \$10,000. N. P. Sutherland is the President.

William Bender, of Ida Grove, Iowa, has purchased two large-size Giant Dustless Grain Separators, manufactured by Dickey & Pease, of Racine, Wis.

The St. Anthony Elevator Company, of Minneapolis, Minn., has completed two 20,000-bushel elevators, one at Church's Ferry, Dak., and one at Grand Harbor, Dak.

At Williamstown, Mich., The Mill and Elevator Company has been incorporated with a capital stock of \$16,000. D. L. Crossman and others are the incorporators.

The Breckenridge Elevator Company, with a capital stock of \$10,000, has been incorporated at Breckenridge, Minn. Peter Hansom and others are the incorporators.

The receipts of wheat at Duluth, Minn., for the five weeks ended Oct. 1 aggregated 6,369,000 bushels, or nearly half as much as received during the whole of last year.

S. S. Gaitskill, a large grain and feed dealer of Mt. Sterling, Ky., assigned Sept. 25. His liabilities were \$22,000, with about \$8,000 assets. J. E. Gaitskill is the assignee.

The Weiss elevator, of this city, has been declared "irregular" by the directors of the Chicago Board of Trade, as the emergency under which it was made "regular" has disappeared.

The Asmuth Malt and Grain Company has been incorporated at Milwaukee, Wis., with a capital stock of \$100,000. A. Asmuth, Chas. Manegold, Jr., and B. E. Fink are the incorporators.

Finch & Hayward, of Wilton, Iowa, have put into their elevator at the above place two large-size Giant Dustless Separators, one for grain and one for flax, manufactured by Dickey & Pease, of Racine, Wis.

A 50,000-bushel elevator will be erected at St. Paul, Minn., in connection with the stockyards which are being established there. It will be used for storing grain for feeding only, and will cost about \$10,000.

The Pacific Elevator Company, at Minneapolis, Minn., Oct. 5, filed an amendment to the articles of incorporation, increasing the limit of indebtedness from \$1,000,000 to \$2,000,000, and authorizing the board of directors to appoint a general manager.

Farmers of Eddy county, Dak., have formed a joint stock company, and hired a man to do their grading and shipping of wheat. They claim that they can get from 5 to 11 cents a bushel more by this plan for their wheat than they get from the elevators.

The Minneapolis *Market Record* says: "The movement from farmers' bins shows some changes throughout the Northwest. In Dakota, where the greatest rush has been, receipts are now lighter, while in Minnesota there is increasing activity. This is the situation on every line of road running through both. The Minneapolis & St. Louis, mostly located in Minnesota, had the largest receipts during the latter days of this week it ever had. The west end of the Hastings & Dakota shows a falling off, while it is more than made up on the east end. The same is true of the Manitoba, Northern Pacific, Omaha, and Northwestern. There has been no blockade this year to correspond with those of a year ago, though the cars on track here are beginning to show an increase.

The added elevator capacity of 4,000,000 bushels since a year ago will remove much of the trouble experienced from that cause last year. During the week there has been some accumulation in stocks, which will show an increase of nearly 300,000 bushels in Minneapolis, and it is estimated about 250,000 bushels in Duluth."

Angus Smith & Co., of Milwaukee, Wis., on Oct. 6, posted notice on 'Change, informing the owners of about 250,000 bushels of old wheat, stored in their elevators, that the grain was in bad condition, and would require frequent handling to keep it in condition. The firm, at the same time, agreed to pay the owners two cents per bushel for all the wheat they would remove within the next five days.

A dispatch from Grand Forks, Dak., dated Oct. 7, says: "A syndicate representing prominent millers in New York state, Michigan, and Scotland, has arranged to buy up all the genuine No. 1 hard wheat raised in the Red River Valley, not to speculate with, but to grind. Hitherto its members have been compelled to put the products of the mills upon the market in competition with Western mills grinding Red River Valley No. 1 hard wheat. As the No. 1 hard wheat is worth from 10 to 15 cents more per bushel for actual grinding purposes than any other wheat raised, in order to protect their business they must grind this wheat. They do not propose to build elevators unless compelled to, but they want the latter to issue wheat tickets for wheat stored in them, guaranteeing weights and grades. These tickets would then be in the nature of a certificate of deposit. The Minneapolis & Northern Elevator Company is the only company in the territory that issues such certificates, and they intend to create such a market for these tickets that in order to get them the farmers will either store their wheat with the Minneapolis & Northern Elevator Company or else force the other elevator companies to exercise the same policy of guaranteeing their own weights and grades. Headquarters will be in this city."

Duluth *Daily Trade*:—The car books of the state grain inspector are an interesting study. In them is the number of every grain car on all roads bringing grain to Duluth, and, as may be imagined, there are lots of numbers in the books. On both the Northern Pacific and Manitoba only even numbers are used to designate grain cars, and in the book of the former road the numbers run well up in the 20,000, while the Manitoba has few cars requiring more than four figures. That both roads are pre-destined for cars and are making as rapid shipments as possible is evidenced by the frequency with which cars get around on their pilgrimages. On the Manitoba Road many cars which are inspected here one day will be back with another load in five or six days, while but few are more than two weeks on the round trip. These cars in this short time are inspected here, unloaded into the elevators, sent out perhaps to Grand Forks or Crookston, nearly 400 miles, or even to Devil's Lake, loaded and returned here ready for inspection. On the Northern Pacific the time taken is slightly longer, averaging nearly ten days for the round trip. There surely can be no complaint in regard to delay anywhere on routes that make such time for freight trains. The demand for cars is so great that on both roads flat cars have been boxed and both these and oil cars are called into use.

The receipts of wheat at wheat ports on the Pacific coast have been over 50 per cent. more than a year ago, and they keep on increasing in quantity steadily. The *Willamette Farmer* says: "Take all the Pacific Northwest, and its harvests, now about completed, are very satisfactory, and will require as large a fleet of grain ships and probably somewhat more tonnage than was loaded at the Columbia River in the harvest year just ended. In Western Oregon the returns for the most part are surprising. The yield is in many instances far beyond expectations. On the Baskett farm in Polk county, 2,500 bushels was reaped on fifty acres, being an average of 50 bushels per acre. From one farm in this part of the valley that they had reckoned on 800 bushels, they had over 1,400, machine measure, that is frequently 10 per cent. short of actual weight. The cases are exceptional where fields turned off less than was expected. Many have given 25 to 75 per cent. above what was expected. It is very certain, then, that our valley aggregate will exceed that of 1885. The farmers are proud of their success, and are feeling happy over it. Good farming has paid them, and there is no doubt that Oregon agriculture is improving in excellence. The wheat of the present year will rank high in quality as well as in quantity. Take the whole North Pacific region and we have reasonable prosperity and fair crops, though we can not hope for a good price for anything save hops, and even hops may tumble before the season is over, if it is found that the supply is greater than supposed. We have always considered their price a precarious matter."

### THE BROOM CORN CROP.

The total broom corn crop of the United States for 1886 is estimated as follows:

	Acres.	No. acres to ton.	Total product, tons.
Illinois.....	32,000	4	8,000
Kansas.....	66,000	10	6,600
Nebraska.....	15,000	5	3,000
Missouri.....	15,000	10	1,500
Ohio.....	4,000	4	1,000
Texas.....	2,000	5	400
Tennessee.....	3,000	5	600
Iowa.....	3,500	7	500
Mohawk and Schoharie Valleys.....	3,500	7	500
<b>Totals.....</b>	<b>144,000</b>	<b>..</b>	<b>22,100</b>

Last year's crop was about 18,000 tons.



## Fires, Casualties, Etc.

L. Tracy, grain dealer, of Tracy, Minn., is dead.  
John Theobald, a brewer of Titusville, Pa., is dead.  
W. R. Pope, grain dealer, of Austin, Tex., has been burned out.  
Gwin & Son, grain dealers, of Brooklyn, Iowa, have been burned out.  
Holmes & Sons' grain elevator, at Brooklyn, Iowa, was burned Sept. 15.

A. D. Allen, a grain dealer of Wichita Falls, Tex., was burned out Sept. 16.

Henry Grass, of the brewing firm of Grass & Co., Brooklyn, N. Y., is dead.

F. Finnie, of the grain firm of Finnie & Rehill, Jamestown, Dak., is dead.

David Miller, a grain merchant of Mechanicsburg and Shiremanstown, Pa., is dead.

A. L. Whitcomb, of the grain firm of Whitcomb & Robinson, Clinton, Ind., is dead.

Bennett's grain elevator, at Urbana, Ohio, was partly unroofed by a severe wind storm Sept. 23.

The large elevator of H. S. Carpenter, at Joliet, Ill., was totally wrecked by a cyclone Sept. 18.

Alex. Bonnell, of the flour and grain commission firm of A. Bonnell & Co., New York City, is dead.

On Sept. 28 Esten's warehouse, at Lawndale, Ill., broke down under the weight of the grain stored in it.

W. U. Tilden's warehouse, at Knowlesville, N. Y., containing 15,000 bushels of wheat, was burned by an incendiary Sept. 30. Loss \$18,000; partly insured.

The Manitoba Company's grain elevator, at St. Joseph, Minn., containing 25,000 bushels of wheat, was destroyed by fire Sept. 25. Loss about \$35,000; partly insured.

J. W. Helm's grain elevator, at Sidney, Ill., was destroyed by fire Oct. 12, with about 17,000 bushels of corn and three cars of grain. The loss exceeded \$12,000; insured for \$4,500.

Manson Campbell, a fanning mill manufacturer of Chatham, Ont., was caught in the machinery of Chas. Northwood's elevator, at the above place, a fortnight ago and was frightfully injured.

A little son of J. Stevenson, proprietor of the elevator at Walcomb, Neb., climbed into a bin of corn from which his father was loading a car, and was drawn into the chute and suffocated before he could be extricated.

The elevator at Lincoln, Ill., owned by Maloney, Spellman & Co., was destroyed by fire Oct. 10, with the machinery and 10,000 bushels of grain. Loss \$11,000; insured for \$5,000. The origin of the fire is a mystery. The firm, it is said, will rebuild at once.

## WHEAT FOUR YEARS OLD.

One parcel of wheat was delivered yesterday in this city on an October contract the storage charge on which amounted to fifty-five and three-quarter cents per bushel. That fact indicates that the wheat in question has been in store here for nearly four years, having been grown not later than in 1882. It does not follow that such a parcel of wheat is actually in store, as the grain on which the paper was issued may have been delivered out long since, leaving the document to be satisfied with newer wheat when presented for redemption at the elevator. The fact is, that our system of carrying favors the retention of old receipts long after the grain they represent has been used up. The storage charge is not collected till the grain is taken out of the warehouse, and this enables the carriers to draw interest on a large sum of money, little of which is actually employed. In the case above referred to the holder of the paper was able to draw interest on the use of 72 cents per bushel while having to pay interest at the bank on little more than 16. The greater part of the value of the property is "carried" by the warehouseman free of interest, and he is content with the arrangement so long as the amount due is less than the selling value of the stuff. When the point of equality between the two is reached the property is confiscated for expenses and sold for what it will bring.

It is believed that a considerable quantity of the above kind of paper is in existence in this city, and that no small quantity of old grain is behind it. At least one elevator is nearly full of this very old wheat, and the owners sit contentedly watching the storage account pile up at the rate of half a cent per bushel every ten days, except during the winter months—apparently not caring whether or no the value of the grain is being lessened by such long keeping. There is no disguising the fact that this sort of material hangs like a wet blanket on the wheat market of this city, and good reason to think that the price of the standard article would not have receded so far by several cents were it not that this questionable stuff may be delivered out on contracts. The buyer of wheat on the regular market is just as likely to receive this old wheat as that from the crop of the

present year. We may say "more likely," if the seller have any of the problematical property in his possession. The result is that the price of the new is pressed down to the level of value of the old for purposes of consumption, and the owner of new wheat, of the fine quality of this season's crop, is obliged to see it sacrificed at the price of something that is not intrinsically worth so much by several cents per bushel.

It ought to be a rule of the Board of Trade that no grain receipts shall be regular if more than two years old. It might even be better for the trade to place the limit at a less time from the date of issue, as is already the case with barreled pork. Such a discrimination would not affect the right of the owner of old grain to sell it on its merits for the best figure he could command, but it would relieve the trade from an incubus that grows with the weight of years, and has already become a heavy load on the legitimate purchase and sale of breadstuffs in this city.—*Chicago Tribune*.

## MARINE.

Vessel room is not plentiful at Chicago, and rates have been 5 cents for wheat and 4½ cents for corn, to Buffalo.

The steamship "March" was loaded recently at Baltimore, Md., with 88,000 bushels of wheat in bags and bulk in six hours and forty minutes.

The largest single cargo of grain that ever left Montreal was lately put on board the steamship "Brentford" by Messrs. George McBean & Co., comprising 104,000 bushels of wheat and peas.

The Chicago Board of Marine Underwriters has raised the rates of insurance on grain cargoes, to take effect Oct. 15. Following is the new tariff: From Chicago to ports on Lake Michigan, per \$100, 50 cents; to ports on Lake Superior, \$1; to ports on Lake Huron, Sarnia and Detroit River, 85 cents; to ports on Georgian Bay, \$1; to ports on Lake Erie, \$1; to ports on Lake Ontario, \$1.35; to Ogdensburg, \$1.35; to Montreal, \$1.75.

The Detroit Dry Dock Company will soon begin work on a steel steamship that will be one-third larger than the largest vessel on the lakes, not excepting the new Anchor Line steamship Susquehanna. It is designed to carry 4,500 tons of freight, or 150,000 bushels of wheat, and will cost not less than \$800,000. Frank E. Kirby, constructing engineer for the company, is preparing the plans and specifications, and expects to have the model ready before the close of navigation. Mr. Kirby went to Europe about two months ago for the express purpose of studying modern designs in naval architecture among the leading European shipyards, and it is confidently expected that the new boat will excel any of his previous efforts. This is saying a great deal, when it is considered that the best modeled boats on the lakes are the result of his handiwork. It was he who designed the steamers Albany, Syracuse, John F. Eddy, City of Cleveland and City of Milwaukee. His plans for the new boat, so far as determined, include the following dimensions: Length of keel, 365 feet; length over all, 385 feet; breadth of beam, 50 feet; depth of hold, 30 feet. She will be 63 feet longer and will have 10 feet more beam than the Susquehanna. The motive power will be supplied by a triple compound engine and four steel boilers. The hull will be constructed of steel with the exception of the decks, which will be of iron. The hold will be divided by water-tight bulkheads, giving four cargo compartments, two machinery compartments and two collision spaces. She will have a double bottom, which will give a water-ballast compartment with a capacity for 150 tons, thus allowing of the steamer going from port to port without cargo. It is the intention of the builders to operate the steamer in connection with others that they intend building during the next year. They calculate that she will be able to transport wheat from Chicago to Buffalo for 1 cent a bushel.

## THE WHEAT TROUBLE IN MILWAUKEE.

A Milwaukee correspondent sends the following account of the trouble there with the wheat in Smith's elevators. He says: "The grain trade of the city has not had such a stirring up for years as it has received the past week from the incidents surrounding and accompanying the posting of the wheat in the Smith elevators. It was the first time in the remembrance of the younger generation that any direct stain had been cast on Milwaukee wheat. The older members of the board of trade could dimly remember one other instance, but so sunk in the shadowy past as to be almost lost to memory. It was a pretty severe blow, too. Milwaukee had so long maintained a high reputation for its No. 2 wheat that the protest was felt by the older members as one might some stain cast upon family honor, and they acted accordingly—grew indignant, denounced the mover, and said lots of disagreeable things they were sorry for later, when they found they were only half right in their tide of denunciation.

"When traced down it was found the carriers were to blame more than any one else for the present state of things. The carrier may be in the grain trade, he may be a banker, he may be an idler, but he must be a capitalist. Otherwise he cannot attain the profits of carrier-ship. This is a body which it is claimed fattens on the life blood of legitimate trade. They are most numerous and vociferous, through the medium of brokers, just previous to the expiration of the month. Then the strident call 'Carry ten (or five) September for two cents,' or 2½, or 2½, as the difference in the price of the cereal for the outgoing and incoming month may be. Now, do not think that the accommodating carrier is taking this trouble for nothing. He is well paid. Suppose he succeeds in securing 100,000 bushels to 'carry.' What does he do? He buys 100,000 bushels of September wheat, say, and then sells October against it. The difference between any two months, or those selected by the carriers for their line of trade, is from 2 to 2½ cents, rarely the former and often the latter.

"Now it is probable that against this purchased 100,000 bushels of wheat there stands carrying charges 30, 40, or even 50 or 60 cents, this according to the length of time the wheat has laid in the elevators. Supposing it is 40 cents. The cereal, it will be supposed further, is selling at 70 cents. It will then be supposed that the carrier invests \$70,000 in the grain, tying it up for the time being. This is a mistake. He invests \$70,000, less the amount of the elevator charges, which the elevator man is obligingly carrying from year to year. In this instance he invests just \$30,000. But the 2 per cent. is to be figured on the amount of money which the wheat nominally represents, \$70,000. For when the time for delivery comes round the carrier dumps his load to meet the demand of the trader who bought November wheat of him and loads up again. Two per cent. of \$70,000 is \$1,400, which, less the insurance and brokers' and other commissions, amounting to between \$300 and \$400 possibly, is the profit the carrier receives for the use of his money for one month. Something over 40 per cent. Is it any wonder that few tears are shed on the floor of the chamber whenever it is found the carriers will have to foot the immediate loss from the recent trouble? And they brought it on themselves.

"It is generally customary to hold wheat one year, as the old wheat commands a premium, as a rule, the second spring. Again, the longer it lays the less money is needed to carry it, and the greater the returns. On some receipts produced on the floor of the chamber the other day there was 57½ cents storage, so that wheat would only cost the purchaser 12½ cents a bushel. When does the elevator man get his pay? When the wheat is shipped. What if the wheat is eaten up by the storage charges? Then the elevator man can do as he likes with the stuff, as it is generally thrown back on his hands. He sells it and makes what he can. The carriers got hold of the receipts of 1884 and held them, thus causing the recent explosion. The wheat had been turned and turned until the fiber had worn off, and it lay so solid in the bin that one could not run one's hand into it. In that condition no air can circulate through it and therefore it heats. To prevent this frequent turning is necessary. After a time in crowded houses, this cannot be done often enough, then comes a condition similar to that which has excited the trade of this city for the past week. Of the old wheat outside of that posted there is but little now remaining in store here. Probably not over three hundred thousand bushels. The remainder is wheat that has been received since Jan. 1, 1886."

## SEPTEMBER RECEIPTS AND SHIPMENTS AT DULUTH.

The wheat receipts at Duluth during the past month have been tremendous, fully twice as much as during any previous month since Duluth became known as a wheat market. These receipts have been on a scale that would have taxed any port in America and would have resulted in disastrous blockades in many a greater railroad center than Duluth. Owing, however, to the rapid dispatch for which this city is famous, there has been no blockade and no delay of cars, though often the cars received in two days have covered ten miles of track.

The receipts during the month have been as follows:

Grade.	Cars.
No. 1 hard.....	1,878
No. 1 northern.....	1,859
No. 2 northern.....	107
No. 3.....	7
Reputed.....	28
No grade.....	161
Winter wheat.....	13
Total wheat.....	9,916
Corn.....	159
Barley.....	18
Oats.....	19
Flax.....	4
Total cars grain.....	10,116

This at 550 bushels of grain to the car, the usual average, equals 5,553,800 bushels of wheat and 87,500 bushels of corn.

The shipments during the month have been on seventy-eight steamers and schooners, and have amounted to the magnificent total of 3,056,818 bushels. This, like the receipts, is the largest amount of any single month. The average cargo carried was 39,320 bushels, though the largest, that of the Onoko, was 90,000 bushels. Average of cargoes to Buffalo has been 45,000 bushels, a very respectable load when one considers that ninety freight cars would be required to carry a like amount.—*Daily Trade*.



# THE AMERICAN ELEVATOR AND GRAIN TRADE.

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Correspondence: We solicit correspondence from all kinds of interest connected with the handling of grain or its products.

## THE POSTED WHEAT IN MILWAUKEE.

Great excitement has been caused in the Milwaukee market by the fact that the Board of Trade has decided to post the wheat at 100 cents per bushel, which is a very low price for the quality of the wheat now in the market.

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below No. 2, or should require to be handled before Nov. 1, there will be no ground for action, as in either case the grain would necessarily become "stagnant."

## A SURE RESULT.

However, were the big elevator owners may protest, the sure result of high storage charges at the great terminal points and less ports will be that the elevator elevators will increase their storage capacity. Possibly the old houses may not do so at once, but gradually the new ones that are built will be built larger, and the old ones may add to their size, and grain be kept in the country instead of sending the central points of speculation and shipment. The necessities of the farmer often compel him to send his grain to market because he has not a suitable place to garner it. The country elevator of moderate size can store his grain at a very moderate price. And this will be done more in the future than in the past, if storage rates do not come down.

## THE TRANSPORTATION QUESTION.

The coming session of Congress is the short session; but, nevertheless, it is an important one. The one just past might be called the "spoiling" period of legislation, while the next will see the "consolidation" of the law. The Reagan administration Bill will come up, and it is a matter of time that one of the other of them will pass and become law.

It is strange that grain men, who want to farm, are most interested in the question of transportation. There is some interest in the possible legislation on this subject. Yet we have heard of no memorial addressed to Congress by the grain men of any section. The Reagan Bill, which is quite radical, hardly stands a show of passing and receiving the President's signature, while we believe the Cullom Bill does. The latter is not perfect, by any means, but perhaps it is the best that could be expected at the present time. In any event, time would show its imperfections. Meanwhile let the grain men be heard from on the subject.

## THE AVERAGE WHEAT YIELD

Statistics show that the average yield of wheat in Minnesota is 11½ bushels per acre, while in Great Britain it is 27 bushels. If the farms of Minnesota produced as much wheat per acre as the farms of Great Britain, the production of wheat in the state named would be over 80,000,000 bushels instead of 35,000,000 bushels as now. At the low price of 60 cents per bushel the above increase of yield would add to the annual income of the farmers \$25,500,000, or about seven times as much as all the freight paid all the railroads in the state on all the wheat now shipped from it.

This is about the substance of a letter addressed to the *Pioneer-Press*. Commenting on the letter, this journal propounds the question: What is the cause of the slight yield on a soil that is reeking with fertility? The answer is: Bad farming. The fact is, the scientific methods of farming as carried on in the Old World are a secret to the American farmer. If the careful and judicious cultivation that prevails in England were adopted in this country, there is no reason why the wheat of Minnesota and Dakota should produce less than 40 per cent. of the average yield of Great Britain. Rest, rotation, and diversification of crops, a conscientious use of fertilizers, the sowing of only the best seed, and the well taken care of, instead of allowing the soil to grow with the old methods—these are some of the things needed to make farming pay in this country. But, as a rule, our farmers will not even be persuaded to summer-plow their best year's wheat land and leave their furrows till the next spring. Hence the unsatisfactory financial condition of a large proportion of farms, which their owners are too prone to ascribe to other

causes, such as excessive freight rates, combination of wheat dealers to force down prices, etc. These evils, no doubt, exist, and should be abolished. But they are insignificant when compared to the one that the farmer has in his power to correct himself by adopting the approved methods of farming which would double, or more than double, the present yield of his soil. Right here is a large and fruitful field of labor for the Farmers' Alliance, that should try to solve the problem of how to raise the average wheat yield of this country to the level of Europe, and to make wheat growing more prosperous than it now.

## BEFORE THE LEGISLATURE.

The Illinois grain dealers, at their recent session at Springfield, appointed a committee of five to prepare a bill to be introduced in the next General Assembly, a bill which will hold the railroads to a greater responsibility for the matter of short weights. It is a notorious fact that grain cars are often in a scandalously bad condition; yet, no matter how bad they may be, the railroad company disclaims its liability of loading, whether from interior or terminal points, its liability for shortage. There does not, however, seem any need of legislation so far as bills of lading are concerned; for the laws of the state make it obligatory on the roads to give a specific bill of lading, and they can be compelled to do so by mandamus proceedings. The only trouble is that up to the present time no one has taken hold of the matter, until the Chicago Board of Trade brought the matter before the Railroad and Warehouse Commission a week or so ago. So far as that matter is concerned, the commissioners and the Board of Trade are in dead earnest, and the roads will have to succumb in the end. But there are radical defects in the whole system of sending grain by rail, as at present practiced. From Boston to Iowa there is no steady stream of complaint, back and forth. Who will solve definitely and definitely the problem of shortages?

But there is plenty of work for the committee of five to do, with the legislature, to protect the interests of the Illinois grain men.

## EXPORTS OF BREADSTUFFS.

According to the September report of the Bureau of Statistics at Washington, the exports of breadstuffs from this country during the month of September and the three months ending Sept. 30, 1886, as compared with the corresponding periods of last year, were as shown by the two tables below:

Articles of Export.	September, 1886		September, 1885	
	Quantity.	Value.	Quantity.	Value.
Barley, bu.....	173,447	\$ 13,446	10,389	\$ 13,446
Corn, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Corn Meal, bbls.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Oats, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Oatmeal, lbs.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Rye, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Wheat, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Wheat Flour, bbls.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Value of total breadstuffs exported	\$4,007,710		\$4,007,710	

Articles of Export.	Three months ending Sept. 30, 1886.		Three months ending Sept. 30, 1885.	
	Quantity.	Value.	Quantity.	Value.
Barley, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Corn, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Corn Meal, bbls.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Oats, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Oatmeal, lbs.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Rye, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Wheat, bu.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Wheat Flour, bbls.....	1,773,438	\$ 1,773,438	1,773,438	\$ 1,773,438
Value of total breadstuffs exported	\$4,007,710		\$4,007,710	

All the breadstuffs exported during the nine months ending Sept. 30, 1886, had an aggregate value of \$110,875,500, against \$100,100,700, the value of the breadstuffs exported during the same period of the previous year.



## Editorial Mention.

PEORIA is certainly making a commendable effort to secure grain for winter storage. And she ought to get it, too.

THE visible supply of wheat on Oct. 9 was 52,787,293 bushels; of corn, 13,577,853 bushels; of oats, 4,994,989 bushels.

W. W. ADLER, of Farmer City, Ill., a grain dealer, is the nominee of the Prohibitionists for Congressman for that district.

A NEW grade of corn, to be known as "Old No. 3," has been established on the New York Produce Exchange, and met with the approval of the New York grain trade.

It is said that there have been some large shortages in grain cargoes recently shipped from Milwaukee. Just how much dependence can be placed in the rumor we are unable to say.

THE Minneapolis *Market Record* avers that Minnesota and Dakota raised not less than 70,000,000 bushels of wheat this year, and looks for receipts at Minneapolis and Duluth to increase for some time to come.

THE inspection fee for cargoes inspected out at Duluth, Minn., has been raised from 25 to 40 cents per 1,000 bushels. The reason given for this advance is that the fees received did not meet the expenses of the inspection offices.

THIS is a good time of the year to subscribe to this paper. We shall continue to make improvements on this paper until we have secured a judgment note, secured by the collateral of a subscription, on the affections of every grain dealer in the country.

MR. A. B. COLTON, of the Frost Mfg. Co., Galesburg, Ill., who is now quartered at the Commercial Hotel, Lincoln, Neb., made us a brief call, and said the season's business had been very satisfactory, with a good outlook for the future.

WE republish a portion of an article which appeared in an Eastern religious paper on the "Morals of Speculation." Its author, Morris H. Smith, is well qualified by his long experience to speak by the book on this subject; and his statement is clear, concise and readily understood.

It is a cheap sort of bluff which some of the big owners of big elevators indulge in when they offer to sell out at a fair valuation. If investigated this "fair valuation" would probably turn out to be the sum, not which the elevator cost, but the sum on which the elevator pays a mighty good rate of interest.

BRADSTREET's quarterly reports of the visible supplies of grain and flour stocks do not seem to be very reliable. The last one, made Oct. 2, gave the stock of wheat at San Francisco at the extraordinary figure of 30,525,000 bushels. A footnote seems to credit this extraordinary amount to the whole Pacific coast, but even then the figures pass belief.

DULUTH grain men are having difficulty in securing insurance for the immense quantities of wheat that have been pouring into that city for the past few weeks. A good deal of insurance business has gone even as far as Cincinnati, as we learn from the *Price-Current*. By the way, the latter journal is one of the few sensible papers

on the subject of so-called "underground insurance," which is often just as good insurance as that made legal by compliance on the part of companies with state statutes.

It is said that the posting of the wheat in Milwaukee on Oct. 6 was for the purpose of hitting Wm. Young, whose wheat it was supposed to be. It turned out that Mr. Young's wheat was in another elevator, and so somebody else's good wheat, some of the finest ever shipped from Milwaukee, was sold at from 68 to 69 cents per bushel, with a 2 cents rebate per bushel on the cargo.

THE address of the Bimetallic Coinage Association given on another page is at least worth reading. We agree with the preface of the *Kansas Farmer*, that while the relation between wheat and silver may be overdrawn, there is nevertheless a degree of connection between silver and the prosperity of the producing classes which it will not do to overlook or slight.

BOWSER'S COMBINATION MILL, illustrated in a recent issue of this paper, is offered to readers in a neat advertisement on another page. Its manufacturer, Mr. N. P. Bowser, of South Bend, Ind., has issued an illustrated pamphlet which he will send to all interested parties who will take the trouble to apply for it. The mill has some very good points and we expect it will become a popular machine.

A CORRESPONDENT asks us if we are willing to have the insurance question as affecting elevator men discussed in our columns. Most emphatically we are. The notice at the head of our column of "Communicated" means exactly what it says. We want all questions relative to the trade discussed which can be discussed with propriety. We want to hear from everybody who has a word to say. Let us hear from you.

JUDGING from the letter of our Kansas City correspondent, that town has been visited by its full quota of cranks. One of them has a great scheme by which the elevator weighs its contents, so to speak, while another has revived the perennial pneumatic transportation scheme. The first has at least the charm of novelty, while the latter is very, very old. Pneumatic transportation is not impossible, by any means; but the world is not prepared for it just yet awhile.

MR. J. M. HARPER, of Peoria, Ill., makes a statement in another column on the question of grain dump patents. We call attention to Mr. Harper's notice, as the popular impression is that the patents which Mr. Harper controls have all been tested in the courts, which Mr. Harper says is not the case; but, on the contrary, his licenses cover a number of grain dump patents which have never been invalidated in any court, and which he says are extensively infringed.

WE call attention to the card of A. W. Straub & Co., of 3737, 3739, and 3741 Filbert St., Philadelphia, Pa., whose "Quaker City" Grinding Mill is described with appropriate illustrations in this issue. These mills are well known, and have enjoyed a large sale for the various purposes for which they are adapted. A postal addressed to Messrs. Straub & Co., at the address given above, will secure a copy of their illustrated catalogue, to parties who will take the pains to do so.

W. G. ADAMS, of Sandwich, Ill., inventor of the Patent Power Car Puller illustrated in this journal some months ago, presents the reader with some strong testimonials from actual users. One of them is from C. A. Bamber, of Iowa Falls, Iowa, who lately completed the elevator of Finch & Hayward, at Wilton, Iowa, where one of these car pullers is in very satisfactory use (for which job, by the way, Mr. Adams furnished machinery and fittings). Mr. Adams may be proud of the excellent record his device has made. We stated at the time that such a device would "fill a long-

felt want," and apparently our prediction has been fully verified.

MAJOR FARQUHAR, of Buffalo, the Congressman with a slouch hat and a big heart, sees a different future for Duluth from that which Proctor Knott evidently thought was in store for the Zenith City. He has made her a visit, and says: "The shipments of wheat in 1880 were 1,453,674 bushels; in 1885, 13,458,127, and this year they will reach 18,000,000. With the natural growth of the vast grain territory west of Duluth, these shipments must continue to increase, and with the improvement of the Hay Lake channel and the building of the new St. Mary's lock there is no good reason why all this should not come directly to Buffalo. Certainly such business is worth striving for."

IN the struggle between the Boards of Trade and the bucket shops, the latter, it seems, are getting the worst of it—in the courts at least. The latest blow dealt these gambling institutions is a decision by Judge Bagby in the Circuit Court of this county, affirming the right of the Chicago Board of Trade to control its quotations subject to its own discretion. The position taken by the Board about two years ago, and now indorsed by the judge, is unquestionably a correct one. No man, of course, can be denied the right of running a bucket shop, however reprehensible be the mode of business as carried on in such a place. On the other hand, the legitimate exchanges are equally justified in withholding their quotations from outside parties, who, by using such quotations, will injure the business of the very institution that furnishes them.

OUR excellent contemporary, *Daily Business*, has some opinions which are eminently just, and which it does not hesitate on occasion to give utterance to. It thinks that the groan about the supremacy of bear influences and the lack of bull leaders generally comes, two times out of three, from men who were enlisted against the greatest bull leader this market ever had. "They railed against him, called him a robber, and kept \$2,000,000 to \$3,000,000 of his money locked up in the courts for a year or two. Many of the gentlemen who were engaged in that fight were doubtless inspired by conscientious motives, but in the light of the history they helped to make can they wonder why 'leaders' are so scarce in this day and generation? Board of Trade soil does not seem to be especially favorable to the development of bull leaders."

It is an undeniable fact that Chicago, once the controlling factor for the Western wheat market, is gradually losing its grip on the trade, which is turning more and more to such points as Minneapolis and Duluth. Referring to this fact, a correspondent of the *Chicago Tribune* points out that this change is naturally brought about to a great extent by the rapid growth of the Northwest as a wheat-raising country. While the districts more directly tributary to Chicago have largely substituted the growing of corn for wheat, the Minnesota and Dakota farmer devotes most of his time and energy to wheat-raising, trying to get it to market as cheaply as possible. This is especially true of the Red River Valley wheat belt, where about all that is grown is wheat. One farm near Fargo, it is claimed, has this year been cleared of its twelfth crop of wheat without a single intermission; yet it yielded 21 bushels to the acre. But wheat-growing in this section is only in its infancy, and the *Tribune* correspondent estimates that at no distant day the Red River Valley will produce almost as much wheat as is wanted for the consumption of as many people as now inhabit the United States. He concludes: When it is added that the cost of the operation has been reduced by the employment of farm machinery to little more than 30 cents per bushel, we have good reason to believe in cheap bread for the future, and to think that there is hope of successful competition with India in the supply of cereal food to the British Isles.



## ITEMS FROM ABROAD

Official returns show that the harvest in Prussia of wheat, rye, barley and oats is very satisfactory.

Italian grain growers are reduced to a desperate condition by taxes, high rents, and, above all, by competition from the United States.

The gross imports of wheat into the United Kingdom for the year ending Aug. 31, 1886, aggregated 11,505,414 quarters, against 13,544,215 quarters the preceding year.

Hugo Werner, a grain merchant of Breslau, Germany, has disappeared from the city after forging drafts to the amount of \$5,000 and defrauding a local firm to the tune of \$2,500.

In Germany both the wheat and rye crops are decidedly of those of last year, and the potato crop is estimated that at least 12,000,000 bushels will be raised.

Vienna penman, Herr J. Sofer, has sent to the French Academy of Sciences a grain in which he has written an address consisting of French words easily legible for gold eyes.

The crop in India is reported not as large as when 44,000,000 bushels were exported, mostly wheat. But it is estimated that with old stock on hand will export about the same as last year.

There have been made with English firms under which they agree to store in their warehouses from America at the rate of seven cents per annum, and insure its quality for the period of storage.

The harvest in France has been comparatively good. The crop this year is estimated at 207,000,000 bushels, against 207,000,000 bushels last year. The country will require the import of about 40,000,000 bushels.

The season imported 16,000,000 bushels of wheat, better than that of last year, and it is estimated that 8,000,000 bushels will require to be imported, the usual importation of wheat will be required in Switzerland.

The crop of 1886 is put at 60,000,000 bushels, against 59,532,000 last year. This it is said the country will have to import 148,000,000 bushels, or usual demands. Usually a large demand has been drawn from this country.

The crop in Russia is considerably short of the usual, but is fair in Rumania. Latest estimates show that over half the usual crop in Russian Poland it is five per cent short, and that makes the crop probably short. So it is not likely that there will be a surplus.

British authority in breadstuffs, wheat situation, states that the crop in Belgium, and Holland 80,000,000 bushels, in and Portugal 16,000,000 bushels, and in Spain 10,000,000 bushels.

The export of wheat may be expected to send us: 10,000,000 bushels; India, 40,000,000 bushels; and other countries 16,000,000 bushels, a total of 20,000,000 bushels.

The produce of the wheat crop of 1886 is estimated at 1,080,000 acres, or 944 bushels an acre. The government statistics show the yield as 9,073,227 bushels from an average of 9.01 bushels an acre, as against 10,443,146 bushels from 1.094,354 acres, or 9.54 bushels an acre. According to these figures, the surplus of only about 1,072,510 bushels most of this is required by neighboring countries. The returns of the barley crop represent it as giving a yield of 1,296,458 bushels from 74,260 acres, or 17.45 bushels an acre. The area of the oat crop was larger than in any previous year, and the gross yield is set at 4,222,344 bushels, or 21.22 bushels per acre.

Says a London correspondent: "The wheat trade has remained in a more or less lifeless condition. A very small business has been done, at the same time a steady tone seems to be asserting itself. The markets just at present are by no means heavily supplied. Farmers are not evincing that eagerness to realize which has been the characteristic of the opening markets of the new season for the past year or two. The weather has been favorable for threshing, but the actual quantity disposed of in the leading markets of England and Wales during the first three weeks of the season was only 104,050 quarters, or about 65,900 quarters less than last year. It would be inferred from this that the grain is in comparatively strong hands, and compulsory realizations are therefore likely to be less frequent. The average price of home-grown wheat for the season exceeds that of last year by 10d per quarter. Had it not been for the full average supplies of foreign flour which have come to hand, a more distinct improvement might have been recorded, as the three weeks' arrivals of foreign wheat into the United Kingdom were 74,000 hundred-weights less than

last year. In the case of flour, however, there has been an increase of fully half a million hundred-weights. Naturally this tells upon the value of wheat and renders the establishment of an advance all the more difficult. It was the heavy weight of flour thrown on the market during the season just concluded that exercised such a depressing effect upon values. Just now we have contending influences to consider. Supplies of both wheat and flour here are distinctly lower than last year, and the harvest is not up to the standard of 1885, either in point of quality or condition. On the other hand, the quantity afloat to us exceeds that of last year by over 300,000 quarters, and there is a gain of about 5,000,000 bushels in the American visible supply, but in the best informed quarters the opinion seems to be that the market will become stronger, the movement, however, being very gradual.

### "NORM" REAM.

Norman B. Ream was born Nov. 5, 1844, in a little village in Somerset county, Pennsylvania, and, like the majority of Chicago's big produce-men, spent his boyhood and early youth on his parents' farm. When 14 years old he earned an occasional honest penny by teaching school, and many more by taking ambrotype portraits of the rural lovers and others who came his way. Norman, it is said, was a singularly handsome boy, being credited with a left shoulder blade and other personal attractions which the damsels of the Pennsylvania wilds came miles to see; but he is never known to have been smiled or winked into furnishing tintype reproductions of his apple-cheeked admirers' charms f. o. c. At the age of 17 he discarded his school, ambrotypes, damsels, and all, and, donning his knapsack, entered the Eighty-fifth Pennsylvania Volunteers as a private. [It may be stated here that the ambrotype layout was seized upon by a knock-kneed rival, who is to-day engaged in making portraits of the same (?) apple-cheeked damsels, and is not known to envy Mr. Ream his present position, any, either.]

The young soldier was promoted rapidly to the various non-commissioned offices, and finally to that of First-Lieutenant. He was engaged in the Peninsular campaign under McClellan, and was in action successively at the siege of Yorktown and battles of Williamsburg, Savage Station, and Fair Oaks, participating actively in the great seven-days' fight before Richmond. He went to North Carolina under Gen. Foster, participating in the engagements at Trenton, Southwest Creek, Kingston, Whitehall and Goldsborough. From there he went to the Department of the South, taking part in the siege of Charleston during the summer of 1863. In the battle of Whitmarsh Island, Feb. 22, 1864, he was severely wounded, which sent him into the hospital for three months. June 16 he returned to his regiment, just in time for the fight at Wear Bottom Church, near Bermuda Hundreds, the same day, and to receive a shot in the right leg. He was unfortunate in the matter of wounds after this, being hit slightly in every subsequent encounter with the enemy, till in August, 1864, he resigned, being utterly incapacitated, through his wounds, from further service.

He returned home from the wars and experienced a very natural disappointment on discovering his inability to root out the knock-kneed rival from his felicitous and impregnable position in the graces of the apple-cheeked community. He was not of the kind that tamely succumbs to this sort of mortification, however, and removed to Harnedsville, Pa., where he opened a general country store amid a community equally as attractive as the one he had just quitted. Here he staid for a year, and then, in 1866, came West to Princeton, Ill., where he embarked in the dry-goods business. A year of Princeton was more than enough for him, and he fled in search of commercial prosperity to Osceola, Ia., in the fall of 1867. Here he conducted a trade in almost every imaginable species of merchandise, combining the sale of ribbons, buttons and feathers to the Iowa girls with that of grain, horses, sheep, cows, pigs and wool to their big brothers.

In the spring of 1871 Mr. Ream's eyes were opened, and he came to Chicago, going into the live-stock commission business at the Stock-Yards and keeping at it for four years. In 1875 he came north, and, purchasing a Board of Trade membership, embarked in the grain and provision commission line, with George C. Ball as a partner. This partnership was dissolved in 1877, Mr. Ream continuing alone at the old stand. In 1880 he took in R. W. Clarke, and in January, 1883, retired from the firm as a general partner and reorganized it under the name of R. W. Clarke & Co., retaining a special interest himself. Since May, 1884, he has been a special partner in the house of H. H. Carr & Co., retaining that interest now. The term "special" partner, it should be explained for the benefit of the uninitiated, means the placing by the "special" partner to the credit of the house of a certain amount of available capital and drawing out his share of the profit from time to time, without actively participating in the management.

In addition to the Chicago concerns in which he is interested, Mr. Ream has large and profitable interests in other States. In 1884 he became interested in a large ranch in Utah, whence some 3,000 head of cattle will be shipped to Chicago for sale this year. He is also interested in ranches situated in Wyoming and Montana, and also has extensive land interests in Iowa, Dakota, Nebraska and Minnesota. The largest blocks of his land, however, are in Kentucky and West Virginia, consisting of something over 125,000 acres in Harland and Bell counties in the former, and 50,000 in the latter State. He

owns also a farm of nearly 2,000 acres in McLean County, this State, which is operated by a competent steward, and would yield him, to say the least, a bare subsistence, should all his other possessions be swept out of sight in a day—which latter contingency it is, perhaps, needless to state, is an impossibility.

Mr. Ream is a heavy holder of Chicago real estate, owning valuable buildings on Water, Dearborn and other streets. He is largely interested in the immense building that will shortly rear its crest over the site of the old Rookery. He is the holder of considerable bank stock, being interested in several Chicago institutions, and also in several banking houses in Iowa and Nebraska.

The ship on which Mr. Ream sailed into the flood tide of commercial prosperity was the world-famous Armour pork corner in 1879. So much has been written of that deal that it is unnecessary to speak of it further than to remind people who may have forgotten the fact that the Armour crowd commenced buying pork at the out set at \$6 or \$7 a barrel, and when the climax came it had pretty nearly all the pork in the world under its control, which sold for just \$19 per barrel. Ream acted as one of Armour's brokers in this little bit of playful speculation, and his share of the profits amounted, as may be readily imagined, to something handsome. When the great McGeech lard crash came that stifling Saturday morning in June, 1883, when the streets contiguous to the old Board of Trade were filled with shrieking, perspiring, hatless, and countless merchants, and the grain markets were toppling to pieces in sympathy with the catastrophe in hand, the combination known as the "Big Four," consisting of Ream, Jack Cudahy, Nat Jones, and Charley Singer, was hastily formed, and the markets being buoyed up by its heavy purchases at the height of the panic, made after the example had been set by B. P. Hutchinson, gradually assumed their normal condition. For a year thereafter this "Big Four," virtually controlled the Chicago grain and provision markets, and from that time Norman B. Ream's wealth has increased rapidly enough to trouble him in keeping track of it.

Mr. Ream has been described by critical associates as a chronic bear, but this impeachment he vigorously denies. "I am in the market to make money," he said recently, "and I go on the side that makes me the most money with the least trouble. I of course study the market closely before going in at all, but when I am there it is not for the purpose of backing my judgment, but of making something." Something for which Mr. Ream is entitled to credit is his refusal at all times to shave commissions. Notwithstanding the Board rules, it is an open secret that business is being done to-day on a basis of one-sixteenth of a cent a bushel by brokers who need the money. Brokers have run after Mr. Ream and offered to do his business at even lower rates than this—which the bulk of the business done with brokers by him would render highly profitable. His reply to such solicitations has always been that he will choose his own brokers and pay his own rate—\$1 per 1,000 bushels of grain, and a corresponding figure for provisions—and this he is doing to-day, and says he will continue to do.

Mr. Ream at all times preserves a quiet and unassuming demeanor, and is one of the most popular men on 'Change. In the connection of popularity the following incident is worth relating: In 1879 or thereabouts Mr. Ream, in conjunction with an Iowa man, was negotiating for a heavy shipment of cattle. To consummate the trade some \$45,000 was necessary. He therefore went to the Corn Exchange Bank, of which B. P. Hutchinson was President, and struck the cashier for \$15,000 as a starter. The cashier informed Mr. Ream that an interview with Mr. Hutchinson would be necessary before the sum would be forthcoming. Going down the street Mr. Ream met Mr. Hutchinson and questioned him about the proposed loan. Mr. Hutchinson instantly agreed to it, and a day or two afterwards Mr. Ream went to the bank, with his collaterals in his hand, to draw the amount. The cashier, however, informed Mr. Ream that he had no instructions to take any collaterals from him. Shortly afterwards the two merchants again met, and Mr. Ream mooted the question of security. "Pshaw!" said Mr. Hutchinson. "I don't want any collaterals from you; I know you," and there the question, so far as collaterals went, terminated.—Tribune.

### GRAIN MOVEMENT AT MILWAUKEE.

The Milwaukee Sentinel of Sept. 27 contains a review of the business of that city for the year ending Aug. 31, 1886, from which the following figures are taken. The receipts and shipments of flour and grain at Milwaukee during the crop year ending Aug. 31, 1886, compare with the previous year as follows, according to the record of the Chamber of Commerce:

	Receipts—	Shipments—
	1885-6.	1884-5.
Flour, bbls.	3,484,638	2,211,337
Wheat, bu.	7,273,119	11,960,835
Barley, bu.	425,391	403,715
Oats, bu.	1,822,182	1,661,413
Rye, bu.	4,862,977	4,447,750
	20,868,717	20,684,060

The Milwaukee Chamber of Commerce decided two years ago to omit from its record of the movement of grain the "through" stuff for other centers, in order to prevent duplication elsewhere.

Tickets of membership to the New York Produce Exchange have been selling at about \$2,400.





The Board of Managers of the Lake Carriers' Association, at Buffalo, N. Y., on Oct. 12, adopted a resolution asking the government to purchase the Portage Lake Canals, with a view to improving them and making them free. A similar resolution was adopted at a meeting of the Vessel Owners' Association, at Cleveland, Ohio, on Oct. 12.

The Hennepin Canal scheme is alive, and, though rather small, is a vigorous infant enterprise. There are such important interests back of it that it cannot be suppressed. The project is urged by the most enterprising and energetic people in the country—those of Illinois and Iowa. Its purpose is to connect by a navigable way the waters of the upper Mississippi with the chain of great lakes. It has been demonstrated that the lakes and the Erie Canal are the great regulators of railroad tariffs between the East and the West. As the commerce of the country increases, these water routes rise in importance. The query naturally arises, Why should not this commercial regulator be extended to the waters of the Mississippi, when that can be done by a short cut from Hennepin to Rock Island?—*Northwestern Lumberman*.

Outside the class comprising the shippers and commission merchants on the line of the Erie Canal, the improvement of the canal at the expense of the state is apparently not looked upon with great favor. This is especially true of the farming class, whose sentiment is thus voiced through a recent issue of the *Geneva Gazette*: "The *Gazette* is most pronounced and uncompromising in opposition to any and every scheme of canal enlargement that involves a dollar's taxation upon the people of the state at large. We have shown the injustice of such a scheme, especially as it affects the farmers of our state; that it fosters and improves a system of free transportation whereby products of cheap Western lands are brought into ruinous competition with the products of their own \$100 per acre farms. Buffalo shippers and New York City consignees, who alone of our state populace profit by canal traffic, can hardly expect New York farmers to furnish cudgels with which to beat out their own brains."

As long as De Lesseps is "alive and kicking," the Panama Canal question will not get a rest. He has set his mind on carrying out this colossal enterprise, regardless of the sacrifice of human lives. He sees the water route to San Francisco shortened by 5,000 miles, the route to Canton and Shanghai by 10,000 miles, and the route to Calcutta by 13,000 miles. A whole army of laborers has perished already from fever and other causes, and many more will follow before the trench is cut, if ever it is finished. Yet the originator and chief engineer of the work is undaunted, and his example seems to have proved infectious with his subordinates. The scheme so far has survived every discouragement, even the adverse report of the engineer Rousseau, lately sent out by the French Government to inspect the canal scheme. The French have unbounded faith in the builder of the Suez Canal, and furnish cheerfully all the funds De Lesseps asks for to complete a gigantic scheme which they do not wish to have left unachieved when death takes away its great projector. This gives the canal a fair show for its ultimate completion, provided the "old man" outlives the work.

The Board of Engineers—General C. B. Comstock, Colonel O. W. Poe and Captain J. C. Post—appointed by the government as a commission to examine in all their relations to commerce the Illinois and Michigan Canal and the proposed Hennepin Canal, to consider their value to the commerce of the country, and all other matters connected with their usefulness to navigation, and report upon the acquisition and improvement of the Illinois and Michigan Canal, and the construction of the Hennepin Canal, met in Rock Island, Ill., on Sept. 30, to gather information concerning the Hennepin project. Among those present at the meeting were Congressmen Murphy and Neece, Governor Bross, and O. B. Guthrie, of Chicago, Judge Waite, H. V. Fisher, George W. Lawrence, L. C. Campbell, of Genesee; L. C. Quick, of Albany, Ill., with several gentlemen from each of the three cities. General Comstock opened the meeting by reading the order which appointed the commission and designated their duties. Congressman Murphy stated that at a meeting of the business men of the three cities proper committees had been appointed to prepare the desired information. He himself had been in Chicago to confer with Governor Bross, C. Dore and Murry Nelson, but all were absent from the city, but Mr. Dore had given General Comstock his views in writing. The General said he had received Mr. Dore's letter, and also a letter from Senator Cullom. Governor Bross then addressed the commission. He said that the action of Congress concerning the Hennepin Canal, its dilly-dallying and delays in meeting the project squarely, as its merits demanded, was disgraceful to the nation and an insult to the Northwest. He then read a written address showing the great need of the canal as a regulator of freight rates and as a cheapener of rates of cost of transportation. He gave statistics to substantiate his points, and was listened to with close attention. General Comstock inquired as to the extent of country which would

be benefited by the reduction of transportation rates, through the building of the canal. General Bross answered that important question, and Mr. Murphy said that the cost of transportation will be reduced fully 50 per cent. Mr. Edward Russell, secretary of the committee on statistics, appointed by the three cities, made a very interesting report, which was attentively listened to by the commission. It furnished them complete information of the amount of transportation furnished and received by Davenport, Rock Island and Moline.



#### Fraudulent Conveyance—Preference.

A debtor, even when in failing circumstances, has the right to pay the *bona fide* demand of one of his creditors to the exclusion of the others; and a partner or firm has the same right, so long as the payments are made in good faith to creditors of the partnership.—*Dietrich vs. Hutchinson, Nebraska Supreme Court*.

#### Insolvency Defined.

By the term "insolvent," as used in the insolvent law of Minnesota, at least when applied to a merchant or other trader, is meant inability to pay one's debts in the ordinary course of business, and not merely an inability to pay his debts in full at some future time, when his affairs shall be ultimately wound up.—*Daniels vs. Palmer, Minnesota Supreme Court*.

#### Contract—Fraud.

One whose consent to execute a contract has been obtained through fraud or undue influence, may rescind the contract, but he must do it promptly on discovering the facts which entitle him to rescind. In this case, where the agreement was executed seventeen months before bringing the action to set aside the contract, the plaintiff having full knowledge of the facts during the interval, and the complainant failing to allege any reason for such delay, it was held that the delay was unreasonable and fatal to the action.—*Burke vs. Levy, California Supreme Court*.

#### Sale—Broker—Warranty.

Some merchants in New Orleans contracted to buy 500 barrels a month of glucose from the manufacturer, B, of New Orleans, making the sale as broker for the manufacturers. Shipments to the amount of 850 barrels were received and stored by the purchasers, but after disposing of a part of this, it was found that the remainder was fermenting and souring, and they notified B, for the sellers, that the goods were not such as they had purchased, B having warranted them against fermentation, and that they held the remaining barrels at the risk of the sellers. Under protest B took the goods and sold them at less than the contract price. The purchasing merchants sued for the value of the freight and charges on the barrels so returned, and defendants counterclaimed for the difference between the original contract price and that got for the goods when sold by B, claiming that plaintiffs bought from B as broker only, and that his assurance about the glucose not souring did not bind them. Held, that B's authority to sell empowered him to give the warranty against fermentation and bound the company; and that the fact that all of the returned barrels had not fermented was no argument against returning the whole lot yet on hand, since plaintiffs had every reason to believe, and, in fact, to know, that the evil would increase rather than decrease.—*Flash vs. American Glucose Company, Louisiana Supreme Court*.

#### Accidents from Machinery.

The master's obligation is not to supply the servant with absolutely safe machinery, or with any particular kind of machinery; but his obligation is to use ordinary and reasonable care not to subject the servant to extraordinary and unreasonable danger. When a master employs a servant to do a particular kind of work, with a particular kind of implements and machinery, the master does not agree that the implements and machinery are free from danger in their use, but he agrees that such implements and machinery, to be used by such servant, are sound, and fit for the purpose intended, so far as ordinary care and prudence can discover; \* \* \* and the servant agrees that he will use such implements with care and prudence. If under such circumstances, harm or injury come to the servant, it must be ranked among the accidents, the risk of which the servant must be deemed to have assumed when he entered into such service. \* \* \* Neither companies nor individuals are bound, as between themselves and their servants, to discard and throw away their implements or machinery, upon the discovery of every new invention which may be thought or claimed to be better than those they have in use; but if they take ordinary care and exercise ordinary prudence to keep their implements or machinery in sound repair, so that harm does not result to the servant

for want of such sound condition of the implements or machinery used, then such individuals or companies will not be responsible to servants for any injury which may occur to them in the use of such implements and machinery.—*Lake Shore & M. S. Ry. Co. vs. McCormick, 74 Ind. 445*.

#### THE WHEAT SUPPLY.

*San Francisco Chronicle*: The views which we expressed in a recent article on the subject of the wheat supply, and the probable course of the wheat market, receive a striking confirmation in the letter from Mr. Vivian, published in yesterday's *Chronicle*. Our contention was that in 1887 consumption would overtake production, and that prices were consequently at or near bottom. Let us see the conclusion reached by Mr. Vivian and his informant, whom he describes as the senior partner of a great London grain brokering firm.

The London broker estimates the world's supply of wheat in 1886 at 2,114,877,702 bushels, derived in the following proportions from the following sources:

	Bushels.
France.....	391,000,000
Germany.....	307,000,000
Austria.....	29,750,000
Hungary.....	110,055,234
Russia.....	216,780,000
Roumania and Servia.....	26,000,000
Spain.....	115,000,000
Italy.....	118,000,000
Denmark.....	5,000,000
Belgium.....	19,500,000
Netherlands.....	5,000,000
Portugal.....	3,000,000
Norway and Sweden.....	3,000,000
Turkey.....	50,000,000
Great Britain and Ireland.....	57,280,000
Other countries.....	7,600,000
Total in Europe.....	1,175,545,234
United States.....	325,000,000
India.....	279,000,000
Australasia.....	23,922,463
British North America.....	36,200,000
Mexico.....	4,000,000
Chili.....	18,000,000
Argentine Republic.....	9,000,000
Cape Colony.....	7,500,000
Algeria and Tunis.....	26,500,000
Egypt.....	15,000,000
Syria.....	15,000,000
Per-sia.....	25,000,000
Asia Minor, &c.....	44,000,000
Total.....	2,114,877,702
Grand total.....	2,114,877,702

To this estimate must be added the surplus carried over from last year, say 70,000,000 bushels, and we have a total supply of wheat for the world's consumption in the year 1886-'87 of 2,184,877,702 bushels. Now, the consumption in the year 1885-'86 is pretty accurately known; it is given as 2,165,000,000 bushels. If the consumption this year is as large it is plain that we shall go into the year 1887-'88 with hardly any surplus at all, as the following simple sum in subtraction shows:

	Bushels.
Available supply 1886-'87.....	2,184,877,702
Estimated consumption.....	2,165,000,000
Surplus at opening of 1878-'88.....	19,877,702

But the population of the world in almost every country of which we have any knowledge is increasing. That of France appears to be stationary; that of Turkey is probably not increasing, but in the United States, Great Britain, Germany, Italy, Russia, Spain, and the British colonies, which are the great wheat-consuming countries, population is increasing steadily year by year, certainly at a rate greater than 1 per cent. per annum. An increase of 1 per cent in the consumption of wheat in 1886-'87 over 1885-'86 would entirely exhaust the supply, and would leave the world with no surplus to go into 1887-'88 with. What effect the discovery of the fact would have on the price can readily be imagined.

The consumption of wheat depends on two factors—price and general prosperity. When wheat sells in the primary markets at anything like 1½ or 2 cents a pound the consumption falls off; the poor can not afford so expensive a luxury; they fall back on corn and other cheaper grains. And when hard times prevail and wages are low, the same results follow, the poor reduce their consumption of food, and substitute corn, rye, and other low-priced cereals for wheat. In parts of Europe where the peasantry are always in a state of semi-starvation wheaten bread is unknown; black rye bread is the food of the Russian, the Polish, and in many sections of the German and French peasant, while the Irish peasant eats potatoes, and the Scotch peasant oatmeal cake. If, therefore, the commercial and industrial prospect for the coming year were dark, or if the price of wheat were high, there would be no ground for fearing a scarcity. But all financial authorities agree that the general business outlook is fair, if not bright, and the price of wheat is certainly not so high that it need debar any family from its use. When No. 1 shipping wheat sells at \$1.35 in this market, wheaten bread is within the reach of every person.

A farmer recently sold a load of barley on the Uxbridge (Ont.) market for 51 cents per bushel. When being unloaded it was found that all the barley but one bag was of a very inferior quality, and the indignant buyer reduced the price to 35 cents per bushel, at which figure the farmer was obliged to sell.



## Press Comment.

### THE WHEAT RING.

Minneapolis wheat rings, including the notorious Millers' Association, make no disguise of their real attitude toward Duluth, smooth-tongued as they assume to be. They propose to apply the knife to Duluth's hold upon the wheat trade, and will cut it loose if it is within their power. Emboldened by their success in manipulating the late state convention, they now make an attack upon our inspection, to hamper and throttle our dealers. As they have thrown the mask aside, it is plain now what they intend to do if they can possibly accomplish it through the commissioners or in any other manner possible. Duluth may look for no quarter from Minneapolis, and the sooner she carries the war into Africa the sooner will she protect her own interests.—*Duluth Tribune*.

### CHICAGO INSPECTION.

Our standards of inspection have been well preserved for many years past, but it has been in opposition to the pleas of not a few men here who claim to believe in what they have chosen to designate as a "commercial grade"—just such a one as is now passing the ordeal at Milwaukee and found not to stand the test. Every year the cry is raised that our inspection is too rigid, and should be made more "liberal" in order to permit the trade here to meet the competition of other points which are able to handle grain that would come here but for the discriminating cuts in rail-freight rates. We shall probably hear the cry again, soon after the new corn begins to move. If so, it will be well to look at the example of Milwaukee in the matter of inspection, and it will do no harm to take a lesson in regard to the doctoring of grain. That kind of thing has been carried on heretofore to an annoying extent, which would ere this have resulted to the detriment of our trade but for the fact that it is only a small part of the whole, while in the City of Bricks it has grown so largely that the tail may now be said to wag the dog. It is not slightly to the credit of some of the warehousemen in this city to say that they have uniformly refused to take into their houses any grain that has passed through the hands of the Chicago mixers and cleaners.—*City Paper*.

### A SIGNIFICANT FACT.

The fact that only about 45 per cent. of all the grain that was received in Chicago last year went into elevator is significant. The storage charges are regarded as so high that the payment of them is avoided whenever possible, and the transference of grain on track has grown into a regular system which already takes care of a little more than half of the cereals handled here. It looks as if the warehousemen will continue to lose more and more of the business unless they introduce a radical reform in their methods of conducting it. Perhaps the motive for abstaining so long is to be found in a conviction that they will ere long lose control of it altogether, and believe in making all they can while the chance lasts. It is well understood that some of them have made arrangements for holding wheat here which ought to be moved out, and that their reason is the fear that when once that is gone they will not soon be able to find other employment for the room. They expect to have to follow the example of Zaccheus, and "come down" in the matter of storage rates, if they would not give up the ship entirely. There are probably very few people conversant with the trade, whether as warehousemen or not, who do not feel assured that the facilities offered for avoiding storage charges entirely will force a reduction, perhaps long before the next wheat crop is disposed of.

### THE FUTURE OF STORAGE CHARGES.

A reduction on storage rates on grain is inevitable in the near future at Buffalo and New York, as well as at Chicago. The elevator owners who profess to think differently, and who boast of their determination to "stand firm" against the demand of the grain interest of the country for relief from their extortions, are apparently laboring under the delusion that the laws of trade are to be permanently suspended in their favor. They stubbornly close their eyes to the fact that the conditions under which they have been so long enabled to levy an excessive and outrageous tax upon the products of the soil no longer exist. But the fact remains for all that, and it is not to be gotten rid of by any amount of "bluffing" or "standing firm" on the part of the elevator owners. They have been industriously making hay while the sun shone, but the weather has changed. The elevator ring, wealthy and powerful though they may be, can not continue to ignore with impunity the revolution that has affected every other interest in the entire commercial world. The expenses of transacting all kinds of business have been very largely reduced. Merchandise of every description is handled on closer margins than in former years. Manufacturers, merchants, transporters, farmers—every class of citizens, indeed, engaged in gainful occupations are forced to be content with smaller profits. It is an era of low prices, and the elevator interest, like every other interest, must accommodate itself to the new order of things. The existing tariff of charges on the storage of grain yields an excessive return on the capital invested, and has become an intolerable burden upon the agriculture of the country. It is inordinately out of proportion to the current range of values, and can

not be much longer maintained without putting in serious jeopardy the supremacy of Chicago as a grain market. The rates must come down. The only question before the elevator men of the city is, as the *Times* has before said, when and in what number the reduction shall be made. In no event can it be very long delayed. It is for the warehousemen to decide whether it shall be made voluntarily and in time to avert the threatened diversion of the grain movement from this city—or under compulsion.—*Chicago Times*.

### WHAT THE CULLOM BILL WILL DO.

The Cullom bill professes to do the work of the Reagan bill, but with so many "ifs" and "ands" and "buts," of which a full description was given in our last, that it can do really nothing, and never was intended to do anything. We ask any fair-minded, reasonable man to read the 4th, 5th and 19th sections, which are the main ones, and then on his honor tell us whether he honestly thinks they mean anything except to satisfy a demand for legislation on the question, or, in other words, to fill the granger's mouth and eyes with dust and stop his complaining till the members can get back to Congress another term and draw \$10,000 as salary, with all the accompaniments thrown in.

In all conscience we ask what is the sense in a provision of law that secures the granger the same rate for a part of the haul that the other fellow pays for the whole, if it is limited to terminal points and on the main line only, and then can be suspended by five men whom the corporation practically choose? How is the granger to know what the rates are if they are to be made public only in so far as the commission see fit? How is pooling, etc., to be stopped, if there is no law against it, until these five men suggest one? And how are five men to settle the numberless questions that come up all over the United States? There are more pool commissioners than that now employed in settling the difficulties between the railroads themselves! We don't wonder that ten Iowa Congressmen voted squarely against such a bare-faced piece of humbuggery as this.—*Iowa Homestead*.

### COST OF TRANSPORTATION.

In 1860 the railroad rate for transporting grain from Chicago to New York was 65 cents per 100 pounds for more than half of the year, and averaged for the whole year 57 cents. This year the nominal rate is 25 cents for performing precisely the same service, and nobody believes that this low rate is being maintained. In 1860 6d was about the lowest rate charged for the transportation of bulk grain from New York to Liverpool, and at times during the year it ran as high as 13d. But taking the lowest regular rate, and it compares with 2½d per bushel, the rate now charged. Then, the cost of transportation has been greatly reduced by changes in methods of transshipment and charges for handling at Chicago, Buffalo, and New York. Finally the reduction for the charge of transportation from the Western farm to Chicago has at least been equal to the reduction from Chicago to New York. Putting the cost at 20 cents per bushel in 1860 from the farm to Chicago, 39 cents from Chicago to New York, and 12 cents from Chicago to Liverpool, together with charges for handling and transshipment, and the total from the farm to the European market would be about 75 cents. To-day the charges on the same grain would not be more than 10 cents from the farm to Chicago, 15 cents from Chicago to New York, and 4½ cents from New York to Liverpool. Including the charges of transshipment and handling, the total would not reach more than 35 cents, or a difference in the cost of transportation of a bushel of wheat from the Western farm to Liverpool in 1886 of 40 cents per bushel as compared with 1860. In other words, the difference in the cost of transportation as between the two periods is almost, if not quite, equal to the primary cost of raising the bushel of wheat. But in 1860 the same wheat was selling at \$1.40 a bushel in New York against 90 cents to-day.—*Chicago Times*.

### THE WORK OF THE WHEAT DOCTORS.

It was rumored here yesterday that the lot of about 750,000 bushels of old wheat in the Angus Smith elevators at Milwaukee had been sold for shipment at 66 cents per bushel. That figure is just about equal to the price of No. 3 spring wheat of the crop of this year, and the claim was made that the same rule would hold good with regard to the rather large quantity of old wheat believed to be yet in store in this city. The idea is not necessarily a correct one. The conditions in the two cities are widely different. The wheat in Milwaukee that is now the subject of so much discussion was probably no better than the grade of No. 3 is in Chicago, and has not been better at any time since it was placed in store there. It is understood here to be nothing more nor less than the product of the establishments in which wheat of inferior grades is mixed and doctored up to just the point at which it will pass muster as No. 2 under a lax system of inspection. The system has been growing worse and worse for two or three years—in fact ever since the resignation of the man who had acted as inspector during all the time that Milwaukee was building up a wheat trade of which she might well be proud. He laid down the office because of the pressure from the wheat doctors to have their wares passed as regular, and who presented so much of the inferior stuff that it was impossible to admit it and preserve the standard. Ever since then the doctors have been active, and found it profitable to pay the expense of transporting large quantities of the inferior grades from this city to be put

through their processes and placed on the market there. If Milwaukee could have continued to draw good wheat freely from the Northwest the two might have mingled to form a good average. But Duluth and Minneapolis have become absorbents of the one, and left the other to stand nearly alone. In such a case its merits are now telling with great force, and furnish a crying argument against the folly of letting down grades in order to accommodate the men who want to scalp a living out of the property of others.—*Chicago Tribune*.

### WILL RAILROADS OWN THEIR OWN ELEVATORS?

The time will come in the history of the grain trade when grain-carrying railroads will own their own elevators for the accommodation of cereal freight, the same as other merchandise. In those days the charges for long-time storage will be reduced to a much smaller figure than now exists, and the inducement to "sell for the carrying charges" will not be so great. The grain trade is passing through the stages of another revolution, one proof of which is to be seen in the growing determination of farmers to sell their grain outright, instead of sharing in the cost of carrying it indefinitely after it passes from their hands into private or public warehouses. When the rural mind grasps an idea it takes hold hard. The unprofitableness of warehousing their grain, taking a receipt for it and then allowing the property to be pushed into sight to depress prices and depreciate the value of their own products has been preached to them for years, but the old way was so very attractive that farmers were reluctant to try another plan. It seems, however, that they have taken a new departure at last, and, judging from advices from the field, they like it. They have come to the assistance of the bear speculators, and many persons in the trade fear that the market may be unreasonably depressed in consequence of the withdrawal of what has in the past been one of the main pillars for the support of prices during the long period of accumulating stocks and tedious waiting for stocks to diminish. A certain European deficiency, and the fact that 25 per cent. of the estimated surplus for the year has been shipped out the first nine weeks of the season, may attract the attention of concentrated capital to our cheap and friendless wheat, and eventually effect a redistribution of profits accruing from short selling. When the American surplus finds its way into European granaries, short sellers may experience difficulty in filling contracts in this and other American markets. This is one of the pleasing uncertainties of the situation.—*Daily Business*.

### AN UNWISE GENERATION OF WHEAT DEALERS.

The average bull or bear conducts his business without reference to the distant future. He don't care a tinker's imprecation for the statistical situation. His success depends upon the adroitness of his diagnosis of immediate effects and movements of markets. In respect to the future, each returning year brings its own peculiar bearings upon the value of breadstuffs, and increasing the uncertainty of the future. Experience loses its usual credence as a teacher and guide. At harvest time this year large deficiencies in the world's production were satisfactorily ascertained, and dealers were, as usual, ready to anticipate higher prices. Old-time experience justifies such expectations. Dealers supposed that the great agricultural interest of the country was fully advised of these conditions, and would respond to them by more scanty than usual deliveries of their surplus, and thus aid in maintaining a higher level of values.

But the unexpected has happened. Instead of a moderate movement to market it has been large without a precedent, and at last, wonder of wonders in the domain of wheat dealing, the farmers themselves have brought on a panic in prices. We call it a panic; for wheat is worth more money. The deliveries of farmers have frightened everybody, and real values are lost sight of. England's markets are dull. Of course they are. It is a fair reflection from the prevailing conditions on this side, but England is consuming every week more than she receives of English farmers, and foreign wheat and flour. For the eight weeks ending Aug. 21 the supply as before was 28,600,000 bushels, and the estimated consumption 32,600,000 bushels. Deficiency, 4,000,000 bushels. Since Aug. 21 neither the sales of English wheat nor the importations have increased. So that two results follow. First, that England's consumption is constantly less than her daily supply. Second, that her wheat and flour quotations can be advanced with little or no risk to any strong syndicate of buyers on this side who are willing to anticipate the period when this great American farmers' wheat movement shall be checked up.

What are Liverpool wheat quotations? On the basis of 4.80 sterling, winter and spring wheat prices are equal to 98½¢. The water freight thence from Toledo is 14½¢, leaving 84¢ at Toledo. From Chicago, including 3¢ storage at Chicago and the water freight is 17½¢, leaving 81¢ at Chicago. We claim that the margin is all that is needed for expenses, and with an ascertained deficiency of 150 millions in England, and much increased deficiencies over last year elsewhere, American dealers are climbing over each other to sell this wheat down. That is our definition of "an unwise generation of wheat dealers." And yet markets are weak and declining. Who will stop it?—*Toledo Market Report*.

The citizens of Raymond, Dak., have organized a joint stock company, and will erect a grain warehouse, to give the farmers in that vicinity an opportunity to ship their grain direct to the central markets.



## THE EXCHANGES.

The Winnipeg Board of Trade have decided to take action relative to the alleged discrimination in favor of Montreal in rates from the Pacific coast.

President Wright, of the Chicago Board of Trade, has put his foot down on the put and call crowd. He has ordered the doors of the settling room closed against them, and the put and call people now assemble in the alley.

On Oct. 7 a circular was passed around on the Milwaukee Chamber of Commerce and freely signed by members, the signers agreeing to refuse wheat from the Smith elevators on contracts, as this wheat had been declared out of condition.

City Collector Onahan, of this city, has addressed a letter to the corporation counsel, asking whether the bucket shops should not be compelled to take out a license as brokers. The collector tersely remarks: "They claim to do a grain commission business, and if the business is legitimately conducted they should pay a license, and if not, they should be summarily closed up."

The election of officers for the Minneapolis Chamber of Commerce resulted as follows: C. M. Loring, president, re-elected; James Marshall, vice-president, re-elected; Wm. Powell, treasurer, re-elected; C. C. Sturtevant, secretary, re-elected; S. Morse, W. F. Meader, Geo. Porter, A. B. Robbins and S. S. Linton, directors; F. R. Pettit, A. C. Loring and W. F. Commons, board of arbitration; John Crosby, H. W. Pratt and Wm. Pettit, board of appeals. The president, treasurer and secretary serve for one year, the directors and members of the board of arbitration and members of the board of appeals two years.

The Board of Trade is not participating to the extent it should in the general revival of speculative business, and the statement is very frequently heard that the bucket-shops are getting a large percentage of outside trade. Among the many plans being discussed to head off bucket-shops is one to cut off all quotations to ticker companies and return to the old plan under which the commission men dealt directly with their customers. This would undoubtedly be a serious blow to bucket-shops, but it would also increase the expenses of commission houses and brokers, and for that reason it might not prove popular with members. Several members of the Board of Directors have been sounded on this proposition by those who seem to feel that the exigencies of the times demand a renewal of the war on bucket-shops.—*Daily Business.*

The Chicago Board of Trade, in conjunction with the grain shippers of this city, about a week ago petitioned the Railroad and Warehouse Commissioners of the state to lend them their aid in the efforts for a change in the present mode of issuing bills of lading. They based their claim on the opinion of Judge Sidney Smith, that the bills of lading, as now issued by the railroads, were contrary to law, containing such vague terms as "more or less," "said to weigh," "subject to correction." The shipper, they said, had no redress if his grain fell short, and it did fall short to an extent very unsatisfactory to the shippers. The bills of lading were issued by the agents of the through-freight lines in many instances which had no legal existence. Mr. Wright added that the question of who weighed the grain or how it was weighed was not of so much importance as a bill which should state that there was so much grain in the car, and if there was not the railroad would make it up. It was charged that the railroads treated with contempt the grievances of shippers. If a door got loose and shook the grain out for hundreds of miles the companies would do nothing. According to the companies the legitimate loss in shipping was from  $\frac{1}{2}$  to 1 per cent. Instances were presented, however, by a committee, in which this amount had been exceeded tenfold on long lines of consecutive shipments. The Commissioners decided to write a circular letter to all the roads calling attention to the law, and then if they do not comply to at once begin a suit, either on behalf of the Commissioners or of the Board of Trade, the Commissioners to make the fight in either case.

## THE VALUE OF WATERWAYS.

A statement was made some days ago to the effect that thus far during the season more wheat had been carried on the Erie canal to the east than on all the railroads running to the seaboard. The condition of affairs indicated by this fact is worth millions of dollars to the grain growers of the West. A waterway not under corporate, but under state control, the earnings of which cannot be pooled, which can enter into no rings or combinations to control the freight traffic exists, and is in operation as a constant competitor with the pooled railroads for the grain-carrying commerce of the West. Such a channel of commerce is of inestimable value to the farmers of the West. It will always secure to producers a fair price for getting their products to market, and will be their protection from corporate greed and the exactions of monopoly.

## DEFECTIVE GRAIN WEIGHING.

The success of the new system of weighing grain and seeds sold on track which was put into operation some time ago by the Milwaukee Chamber of Commerce has caused the Chicago grain receivers to renew their efforts to obtain a change in the system here. The general character of this change is for the directory of the Board of Trade to take charge of all weighing by placing competent and disinterested men at the scales, whose returns shall be considered final by both buyer and seller. The feeling among the grain receivers is very decided, and all are one way. "The railroads manage this business," said Mr. Wanzer, of Wanzer & Co., yesterday, "but the trouble is with the system. The scales are out of doors where the man who does the weighing can not see the wagon. A man or a boy can stand on the scales at the right time and beat us out of his weight on every load. Another trouble is that the men who buy grain of us sell it through the scale men in small lots, and sometimes the scale men promise good weights to get customers, at our expense. I think scales ought to be in the hands of men wholly independent. There are some roads better than others. The St. Paul, for instance, gives us very little complaint."

"The present system was tried for years," Mr. Everingham remarked, "and has been found wanting. While progress has been made in every department of trade, we have still the same old method of weighing that we had years ago. I heartily indorse the late action of the Milwaukee Chamber of Commerce, which has provided scales at its own expense and competent weighmen, and their weights are final."

Maurice Rosenbaum said: "In regard to delivering grain and seed sold by sample there does not seem to be a great deal of trouble. The seller of the property has to stand all the chances of errors and dishonesty. We feel certain the honest grain buyers will assist the grain receivers in this movement."

Mr. Lewis, of Pope & Lewis, when asked his position, showed the following extract of a letter from E. P. Bacon & Co., their Milwaukee correspondents:

"The weighing matter is working out all right, the resistance to it being steadily overcome, and we think in a little time all buyers will acknowledge its fairness and equity."

Mr. Lewis stated that the evil was so great that he did not sell grain to be delivered on track if he could help it, preferring to take less money and let it go to the elevators. The seller had no idea where the property was going. It might turn up a hundred miles from Chicago, to be weighed as the purchaser thought best, and the seller had absolutely no protection except the buyer's honesty.

John A. Brown, of Chandler-Brown Company, said: "Every receiver of grain and seeds has a common interest in this with the trustworthy purchaser, and their number so largely exceeds that of the other class that there should be no difficulty in formulating some rule or rules to govern the business, which shall be a protection, and the sooner this can be done the better."

## PUTS, CALLS, SPREADS AND STRADDLES.

"What are 'puts,' 'calls,' 'spreads' and 'straddles'?" asked a New York *Mail and Express* reporter.

"Well," said John E. McCann, the confidential clerk of Russell Sage, of whom the question was asked, "I'll tell you if you will promise never to mention the poetical subject again. It requires pretty deft wording to make the thing clear, so it is not an exhilarating subject to talk on. You hear a good deal about 'puts' and 'calls,' but I venture to say there are 50,000,000 people in the United States who do not know what they are, nor what the meaning is of the word 'privileges.' Now, a privilege is a contract by which the maker of it, Russell Sage, S. V. White, Jay Gould, or Harvey Kennedy, engages to purchase from the holder in the one case, or to sell to the holder, in the other case, a number of shares of some specified stock at a certain price, at any time within a certain period, at the option of the holder. Got that?"

"A 'call' is a privilege bought of the maker, at a certain price, and the owner of it is privileged to call for a certain amount of stock at a given price, within thirty, sixty or ninety days, four or six months. If a man holds a 'put,' he has the right to deliver to the maker of the privilege a stock at a certain agreed price within a certain number of days. Clear? No? Well, let's try once more."

"Suppose Western Union is selling at 70. A man wants a sixty-day 'put' on it at 66, because he believes the stock is going down. He gives Mr. Sage, Mr. White, Mr. Kennedy or Mr. Gould 1 per cent. on the amount of stock he wants to deal in. A hundred shares is usual, and 1 per cent is \$100. He receives in return a slip of paper signed by either one or the other of these gentlemen. Then if Western Union goes below 66 within sixty days he may buy it for whatever it is selling for below that price, and 'put' it to the maker of the privilege at the price agreed on—66—and receive a check for \$6.60. The holder makes the difference. Ah, you understand? If Telegraph does not go below 66 the holder is out his \$100. The 'call' business operates exactly in the opposite way. A man buys the privilege of calling Western Union at 75 when it is selling at 70. If it sells above 75 you can call on the maker of the privilege for a hundred shares at 75, and the hundred shares

are thus bought by the holder for \$7,500, and he turns around and sells it at 80, if the stock is selling there, and pockets the difference."

"What about 'spreads' and 'straddles'?"  
"A 'straddle' is a 'put' and 'call' combined. The holder of one may 'put' stock to the maker of the privilege or 'call' for it. 'Straddles' come high, because there is money in them whichever way the market may go. If the market does not go at all, but stands still, why the maker is in the money he has been paid for the privilege, usually about 3 per cent., or \$300. A 'spread' is also a 'put' and a 'call' combined, but there is this difference: A 'straddle' is made at the market. That is to say, the maker of the privilege takes the risk that the stock in question does not move to any extent from the price at which it is selling when the privilege is sold. In a 'spread' the maker has more leeway. "If Western Union is selling at 70, to go back to the old illustration, the maker of the privilege sells a 'spread,' say at 67 and 80. If it goes below 67 the holder can 'put' the stock and make the difference, and if it goes above 80 the holder can 'call' at that price and reap the profits. But so long as the price of the stock keeps within those points the maker of the privilege is safe. To put it in another way, the holder of a 'straddle' will make if the market for the stock he is dealing in moves at all. The holder of a 'spread' doesn't make anything until the market moves past certain limits. There is one thing more; the maker of a privilege only receives the money for which he sells the privilege, while the holder may make thousands—or nothing."

## GRAIN DUMPS.

It is due to myself and my licensees, that the public should be cautioned against the misleading statements in a notice recently published concerning my grain-dump patents and licenses. I have instructed my attorneys to bring suit for libel against the author of the notice, but the main point of interest to the public is that my licenses cover a number of grain-dump patents, never invalidated by any court, and which are extensively infringed.

My licensees are guaranteed against the demands of any grain-dump claimant, real or pretended; no one holding under me has ever been sued thereafter, to my knowledge, and none such can be disturbed or be made to pay twice.

Amongst the patents I control is that of John Sypes, who was twice decided by the Patent Office to be the first inventor of his rail grain-dump, as against Robert M. McGrath, of LaFayette, Ind. McGrath is now sued by me under the Sypes Grain Dump Patent.

The Board of Appeal in the Patent Office, with full proofs before them, from both McGrath and Sypes, conclude their decision by saying: "All that we have to do is to determine the question of priority (of invention) between these parties; this we do in favor of Sypes, and affirm the decision of the Examiner of Interferences."

Full text of this decision furnished on application to me.

JAMES M. HARPER,  
PEORIA, ILL.

## ILLINOIS CORN AND THE MAINE ARTICLE.

A few days ago I happened to dine with Mr. Blaine, and heard him tell the table a story about General Grant which well illustrated the General's sly humor and keen appreciation of a joke. "The late Israel Washburne," said Mr. Blaine, "had a very exalted opinion of the state of Maine. He thought Maine a great state for everything. He thought Maine a great wheat state and a great corn state—and I don't know but a great cotton state. When General Grant visited Maine ex-Governor Washburne accompanied the General and myself in a railroad ride through a part of the state. Ex-Governor Washburne had been descending on the glories of Maine, when General Grant said, giving me a nudge: 'I believe Maine is a great corn state, Governor Washburne?' 'Oh, yes, Maine is a grand corn state,' replied Washburne. 'Some of the corn patches we've passed remind me of the corn fields in Illinois in which a man on horseback can not reach the tassels,' added Grant with a twinkling eye. The ex-Governor," continued Mr. Blaine, "did not see for a moment that in one case the horseman could not reach up to the tassels and in the other case could not reach down to them."—*Lewiston (Me.) Journal.*

## ABLE-BODIED LIARS.

Iowa man—"Talking about dry weather, why, it's an actual fact that in Iowa the watermelons haven't a drop in 'em—have to be soaked before we can market 'em."

Nebraska man—"Shouldn't be surprised. Wish you could have been with me on a ride I took during the heated term."

"Hot, eh?"

"Well, I didn't feel it so much, but it was such a pretty sight to see the corn popping in the fields."



## WANTED.

A young man (25) who has had seven years' experience in an elevator of 1,500,000 bushels' capacity as weighman, and can furnish best references, desires a situation. Address

ENERGETIC, Lock Box 63, Baltimore, Md.

## For Sale.

## STEAM ELEVATOR FOR SALE.

Capacity, 10,000 bushels. Good grain and coal trade established. Located in Denison, county seat of Crawford county, Iowa. Wheat, corn, barley, oats, rye, and flax are abundant and of finest quality. Received and shipped in August two cars daily. If sold soon it will go at a bargain. Call on or address

R. HEFFELFINGER, Denison, Iowa.

## THE BEST BARGAIN OF ALL.

A nearly new 50,000-bushel steam elevator, situated in the celebrated No. 1 hard wheat belt of the Red River Valley in Dakota, for sale on the most liberal terms. Was built by a syndicate of capitalists to enhance the value of adjoining property, but have too much other business to give the elevator proper attention. For terms and price, address

GEO. M. FURMAN, Grand Forks, Dak.

## SECOND-HAND ENGINES AND BOILERS.

One Lane & Bodley 50-horse power engine and 60-horse power boiler; one portable Economizer 15-horse power engine and boiler; one Bookwalter 6-horse power upright engine and boiler. These engines are all in good order and repair, and have been replaced with engines of our own make. They will be sold cheap. Call on or address

FREMONT FOUNDRY AND MACHINE CO., Fremont, Neb

## FOR SALE, HAY AND STRAW PRESSES.

One Whiteman Agricultural Horse Power Hay Press, 17x18, in good repair; used only two years. Cash, \$125. Reason for selling, going out of business.

One steam press, Dederick & Co., 14x18, Belt Perpetual Press, in good repair. Press fifteen tons a day by steam. Cash, \$200.

Reason for selling, going out of business. Address  
W. ARMINGTON, Agent, Natrona, Ill.

## FOR SALE.

My grain elevator (Chase plan) of 50,000 bushels' bin capacity. In connection with the same two fast-running chop mills (seventy bushels an hour) and a large warehouse with rear track connection with the P., Ft. W. & C. R. R. This is a splendid opening for a live man with sufficient means. Large trade fully established. Only elevator and chop mills in the city, having a population of 100,000. Poor health is the reason for selling. Liberal terms. Address

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## AVOID MISTAKES.

The accuracy of weights depends in a great measure on the accuracy of weighmen.

Having a reliable Scale does not insure your having reliable weights, because your Scale does not record the weights.

The present system of Elevator Accounts is incomplete because the most important entries—the weighman's figures—which should be correct beyond a doubt, are, in fact, the only figures on which there is no check. Demuth's Check Scale Beam affords an absolute proof of the weighman's figures. By adopting the Check Beam, Elevator Accounts may include proof of all entries instead of all but the most important entries.

Manufactured by

FAIRBANKS, MORSE & Co.,  
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Milling orders for car lots of choicest hard wheat  
Promptly Filled.

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DEALERS and MILLERS are requested to mail Samples and quote Prices f. o. b. cars. LIBERAL ADVANCES made. Correspondence Solicited.

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Dealers in Grain and Provisions cannot afford to do without their  
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THE W. G. ADAMS POWER CAR PULLER

OFFICE OF  
SANDWICH MANUFACTURING COMPANY,  
4, P. ADAMS, Stry and Town.

In reply to yours of \_\_\_\_\_

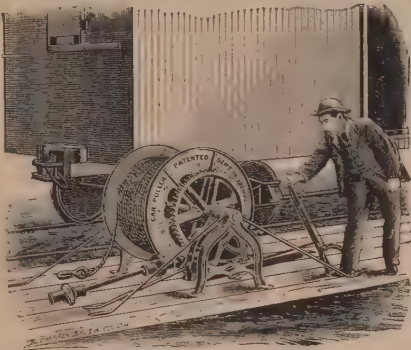
Sandwich, Ill., Sept. 27th 1886

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Correspondence Solicited.



WITHOUT DELAY.

AND PLACE YOUR ORDERS

SAY OF IT

Note what those using it

Manufactured by W. G. ADAMS, SANDWICH, ILL., U. S. A.

FINCH & HAYWARD,

Wholesale Grain and Seeds.

GENERAL OFFICE AT DAVENPORT, IOWA.

Transfer Elevator and Cleaning House at Wilton, Iowa.  
E. P. FINCH, SUPERINTENDENT.

Wilton, Iowa, Sept 22 1886

W. G. Adams Esq.  
Sandwich, Ill.  
Dear Sir

I am running  
one of your car pullers in  
the large Elevator & cleaning  
House of Finch & Hayward at  
this place. It does its work  
perfectly, & I consider it one of  
the best machines I have  
ever used. would not do without  
one for double price

Yours Respectfully  
E. P. Finch  
Supt



Iowa Falls, Iowa, Sep. 22nd 1886

W. G. Adams Esq.  
Sandwich, Ill.

Dear Sir

I have just placed one of  
your car pullers in the large Elevator  
of Finch & Hayward at Wilton, Iowa  
I have seen several devices in use for handling  
cars, but I consider your machine far  
superior to any thing of the kind in use  
It works perfectly & I can cheerfully recom-  
mend it in every respect

Yours Very Respectfully  
C. A. Bamber

MANUFACTURER OF  
AND DEALER IN

GRAIN ELEVATOR SUPPLIES OF ALL KINDS.

W. G. Adams  
Sandwich, Ill.

Dear Sir:- The Power Car Puller  
that we purchased of you has now been in  
almost constant use for nine months, and we  
take pleasure in saying that it has never given  
us a moments trouble or failed to do all that  
we required of it, during that time.

We have repeatedly put it to as severe tests as  
a machine of the kind will ever be liable to be  
put to, in moving heavily loaded cars of machinery  
lumber, iron, coal, etc. over the various tracks  
in our yards; frequently over icy and dirty tracks  
at this writing there is no perceptible wear in any  
of its parts and to all appearances it is in as good  
condition as when placed in our factory.

One man, with the assistance of the puller,  
can quickly place a car at any point in our  
yard or turn it on the turn table.

Having long felt the need of a machine of  
this kind, we greatly appreciate this labor  
saving device and feel very confident that it  
will meet with great favor by all who have oc-  
casion to handle cars without the assistance  
of a switch engine.

Yours very truly,  
Sandwich Mfg. Co.

G. B. Stocks

Frank A. Stock

Bank of Blue Rapids

G. B. STOCKS & SON,  
Bankers.

Blue Rapids, Kansas, July 14th 1886

W. G. Adams Esq.  
Sandwich, Ill.

Dear Sir:-

We take  
pleasure in saying that your car puller  
for Elevators, fills a long felt want. It is  
compact, labor saving and economical. We  
have found it to be all and even more  
than your claim for it. Any Elevator is  
not complete without it.

Yours Truly  
G. B. Stocks & Son

E. PROCTOR, Superintendent.

OFFICE OF

D. H. HARTY, Secretary.

Lincoln Coal Mining Company

Lincoln, Illinois, Aug 20 1886

We have in use one of Adams  
Car Puller and it does work  
with ease, and saves us  
a great deal of hard work.  
I can recommend the Machine  
as a great labor saving  
Machine for moving Cars

Lincoln Coal Co



# Bowsher's Combination Mill

CRUSHER, GRINDER AND ELEVATOR.

Great Capacity! Moderate Power! Perfect Work!

STRONGLY BUILT.

PARTS: INTERCHANGEABLE. GRINDS: COOL.  
FEEDS: REGULAR.

NO TIME LOST WHEN CHANGING FROM  
Crushing to Grinding.



CLEANLY! CONVENIENT! PRACTICAL! CHEAP!

COMPLETE!

THE MILL TO MAKE MONEY WITH.

**N. P. BOWSHER,**

MANUFACTURER,

SOUTH BEND, INDIANA.

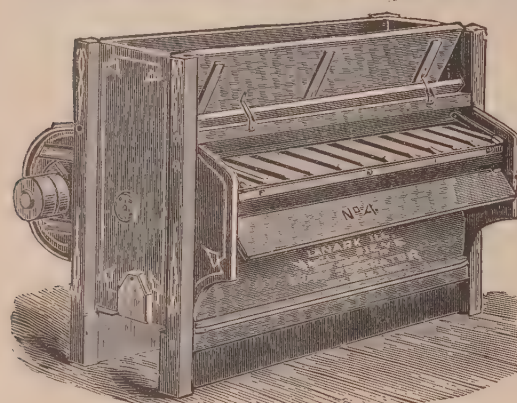
HAS THE ONLY PRACTICAL AND SUCCESSFUL

SELF-FEED, AUTOMATIC AND REGULAR

## THE ANGLE SIEVE GRAIN SEPARATOR

(D. T. Weed and H. A. Webber's Celebrated Patent.)

The **CHAMPION** of the **WORLD.**

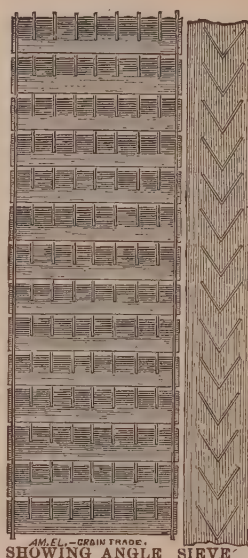


Everybody is astonished to see the work it does. We challenge competition, for general cleaning purposes. We can and will separate oats and wheat raised together, the first time through the Separator, and make it fit for market, and not run any wheat over in the oats. No other Separator can help running wheat over, where the suction or blast is depended on to make the separation, which we claim is not the correct principle of separation. The peculiar construction of the sieve, and the motion of it, do the work. We can take oats out of barley just as well, though not quite so fast. No other Separator attempts to do this. We can also clean buckwheat, flax, rice or any other small seeds that any other separator will handle.

WRITE FOR CIRCULARS AND PRICES.

Address the Manufacturer,

**D. T. WEED,** { ONE OF THE PATENTEES, } **Lanark, Carroll Co., Ill.**



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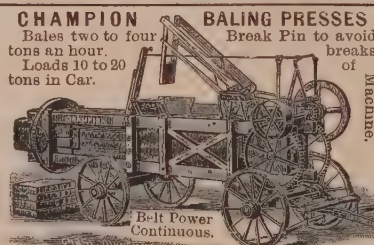
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Will Remove Scales

From any Boiler, and by its continued use keep them from Forming.

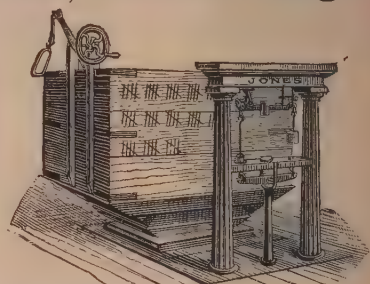
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Address, **FAMOUS MFG. CO.**, Quincy, Ill.

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Before purchasing, send for Price List of our Standard Scales.—None better.—Fully Warranted.—All sizes made.

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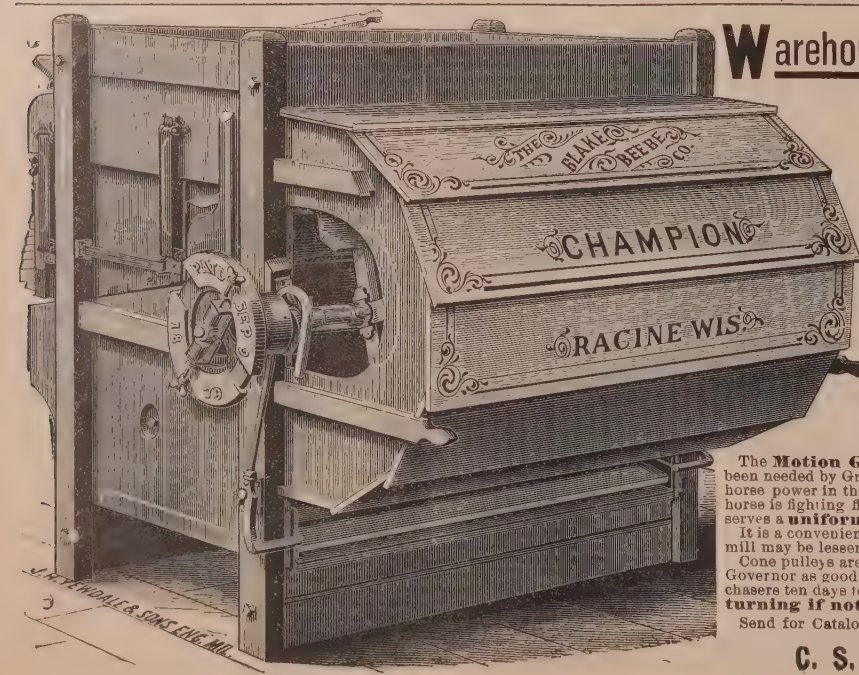
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FOR TRIMMING CARS.



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With this Spout you can load a car without shoveling, and it is the best Spout for general use in the market. Will work well in any kind of an Elevator, and is designed expressly for loading where there is but little fall from bin.



## Warehouse Fanning Mills.

Cut of No. 6 Mill with Motion Governor.

—CAPACITY—

**600 BUSHEL**

PER HOUR.

—WE MAKE—

**Seven Different Sizes**

—FOR—

**Warehouses and Elevators.**

More of them in actual and satisfactory use than any other kind.

The **Motion Governor** is something that has long been needed by Grain men, particularly by those who use horse power in their elevators, for it matters not if the horse is fighting flies, jumps or runs, this Governor preserves a **uniform and steady speed.**

It is a convenience with steam power, as the speed of the mill may be lessened or accelerated by it in a moment.

One pulley is unnecessary with it. We guarantee this Governor as good as represented and we will allow purchasers ten days to test it, with the **privilege of returning if not equal to the guarantee.**

Send for Catalogue to

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Also Manufacturers of the following Standard Milling Machines:

The Best Scourer for Barley in use.

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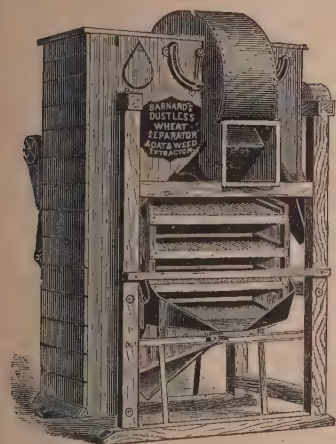
THE LIGHTEST RUNNING AND MOST ECONOMICAL ROLL ON THE MARKET.

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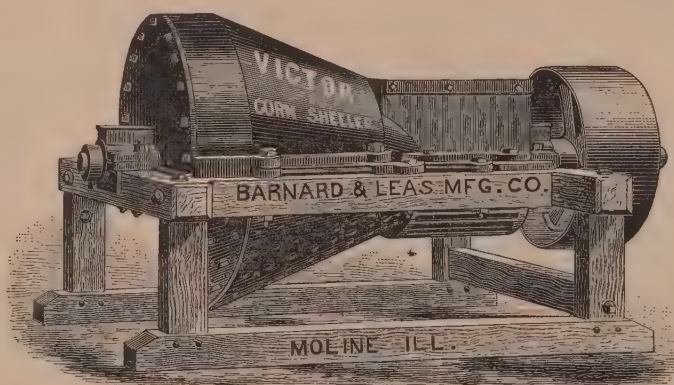
**MESSRS. BARNARD & LEAS, MOLINE, ILL.** — *GENTLEMEN: Inclosed please find draft for amount for Warehouse Separator. I must say I am well pleased with the Separator, and will take pleasure in recommending it to others, for I am sure it cannot fail to give the best of satisfaction if purchasers will only follow instructions in setting it up, which is a very easy matter. I superintended the setting up of mine, and it works splendidly.*

Yours truly,

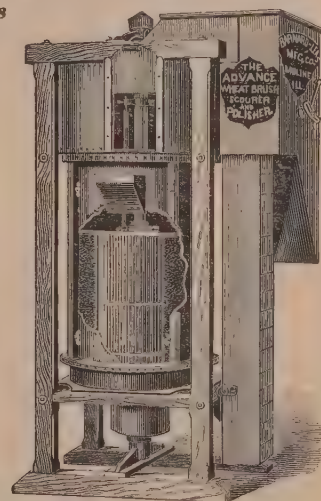
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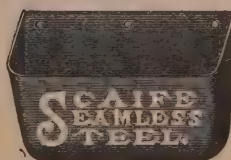
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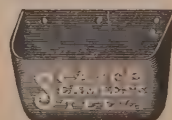
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Seamless  
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1868.**PERFORATED METALS.** Incorporated  
1879.For Use  
in  
Mills,  
Elevators  
and  
Ware-  
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All Kinds  
of  
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**The Robert Aitchison Perforated Metal Comp'y**  
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**THE SEELEY ELEVATOR.****SEELEY, SON & CO.**

FREMONT, NEB.

**ELEVATOR BUILDERS**  
**THE SEELEY ELEVATOR**

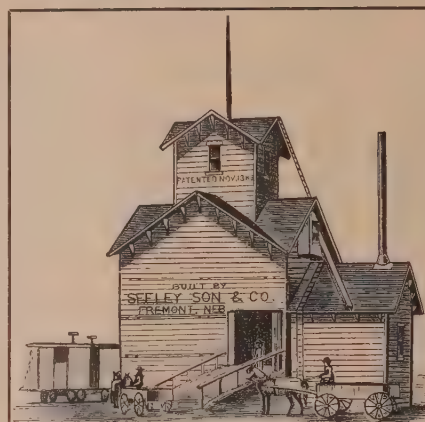
Stands at the head for Convenience and Economy of Operation.

**Plans, Specifications AND ESTIMATES.**Also furnish all kinds of *Machinery*, Engines, Cleaners, Corn Shellers, Belts and Buckets, etc., etc.

We sell dumps licensed under the patents controlled by J. M. Harper.

We build Elevators in all parts of the United States and Canada.

With our experience, we can save you on these items more than cost of Plans. Correspond with us and save costly mistakes.

**JOHNSON & FIELD,**

MANUFACTURERS OF THE

**Dustless GRAIN Separator**

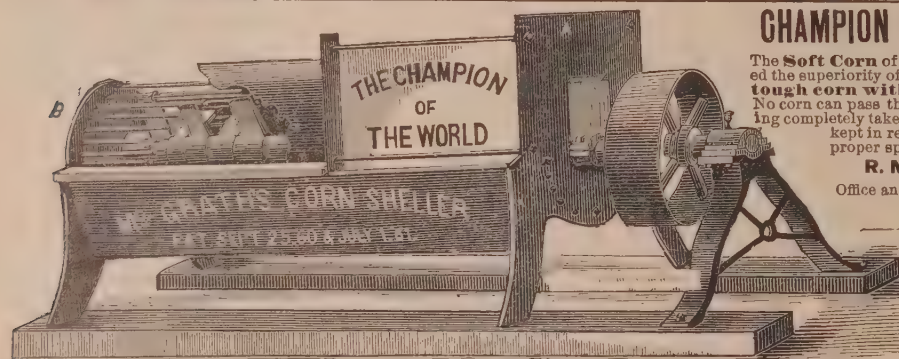
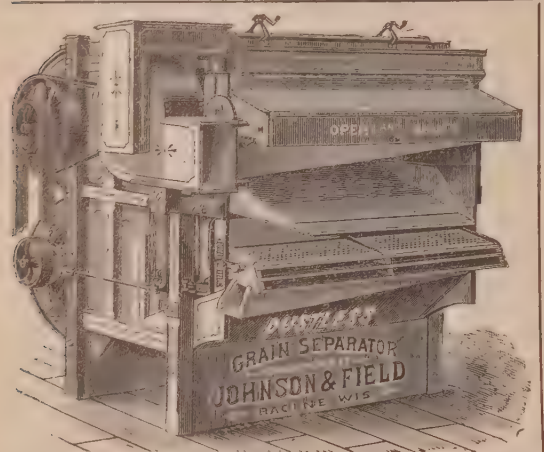
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Than any other machine now offered for similar purposes. **Light Running, Large in Capacity, Perfect in Separation, and with GREAT STRENGTH and DURABILITY.**

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**AS A GRADER IT HAS NO EQUAL.**

Made in Different Sizes to Suit Different Requirements. Send for Circular, with Testimonials and Prices. Address

**JOHNSON & FIELD, - - RACINE, WIS.****CHAMPION OF THE WORLD !**The **Soft Corn** of this year has again demonstrated the superiority of the "Champion" in **shelling tough corn without breaking the grain.** No corn can pass through this Sheller without being completely taken from the cob, if the machine is kept in reasonable repair, and run at the proper speed. Address**R. M. McGRATH & SON,**  
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—Also Manufacturers of—

**McGrath's Hornet**

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**McGrath's Twin Corn**  
Sheller and Cleaner.**McGrath's Pat. Grain**  
Dump. Also Shaffing,  
Pulleys, Hangers and  
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of every description.**TRENTON RUBBER COMPANY,**

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Manufacturers of Best Grades

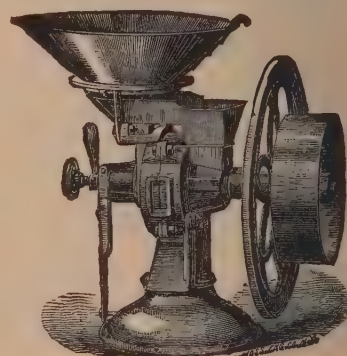
**Mechanical Rubber Goods**

Especially Adapted for

**Elevator and Mill Use.**

All Goods Guaranteed.

Price lists, discounts and samples furnished upon application.

**OFFICE and WORKS:****TRENTON, New Jersey.****QUAKER CITY****Double Reduction Grinding Mill,**

For Corn and Cob, Feed and Table Meal.

This mill received the First Premium at the Pennsylvania State Fair 1884. Send for Circular.

**A. W. STRAUB & CO.,****3737 Filbert St., - Philadelphia, Pa.**

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**ROOFING**  
SIDING, CEILING,  
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**CHICAGO CAR MOVER**

With it One Man can Move a Loaded Car.

WEIGHT, including Handle, 15 lbs.

Guaranteed not to break or get out of order. Sent on 30 days' trial. Send Postal for Sample, and you will use no other.

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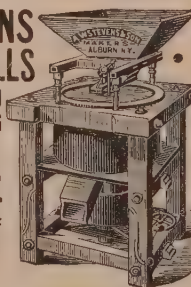
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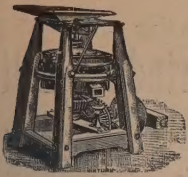
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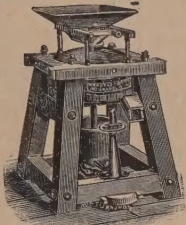
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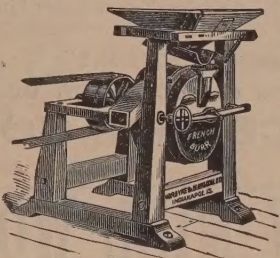
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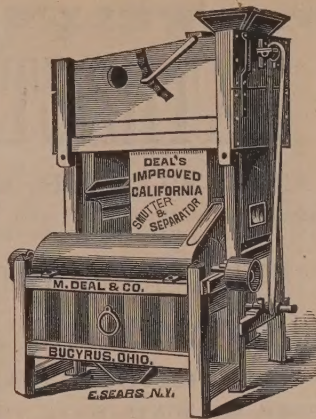
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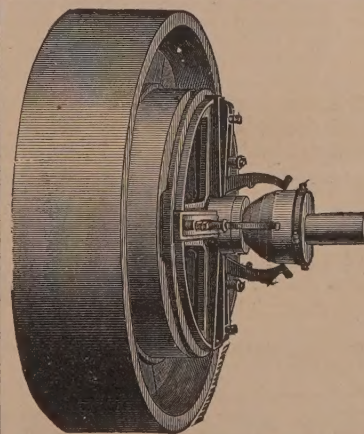
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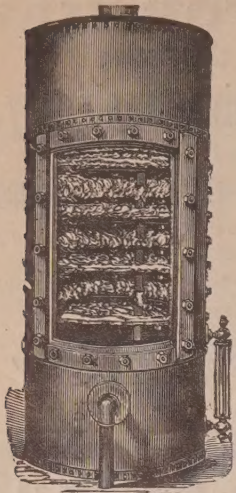
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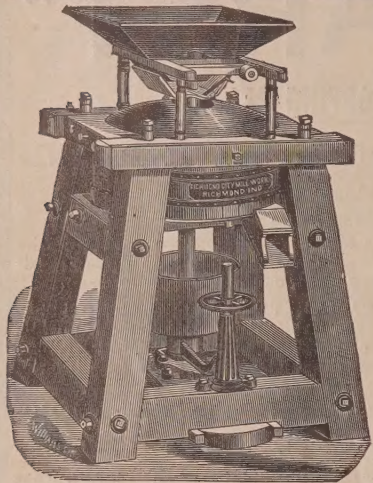
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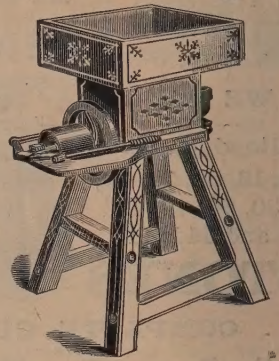
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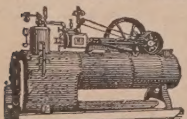
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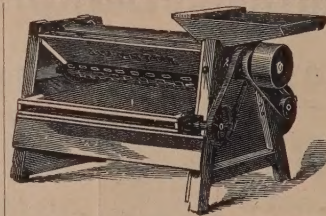
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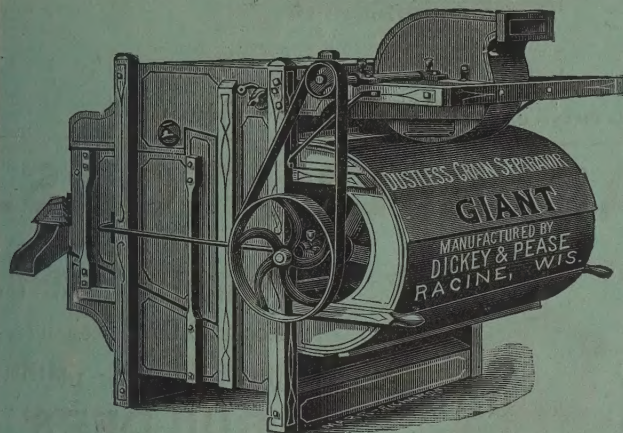
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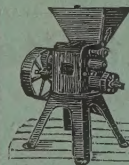
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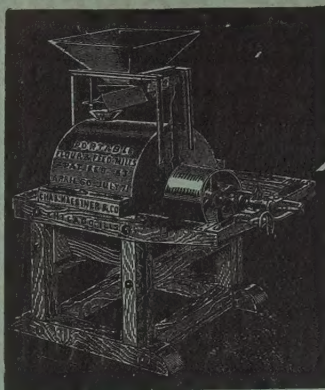
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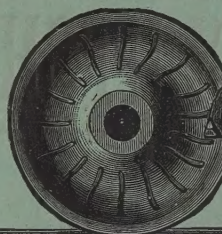
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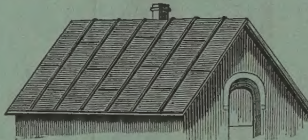
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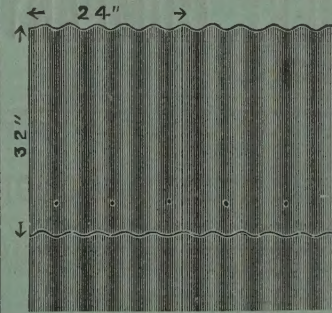
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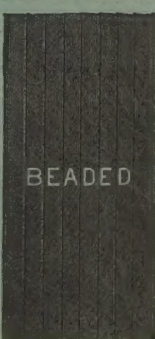
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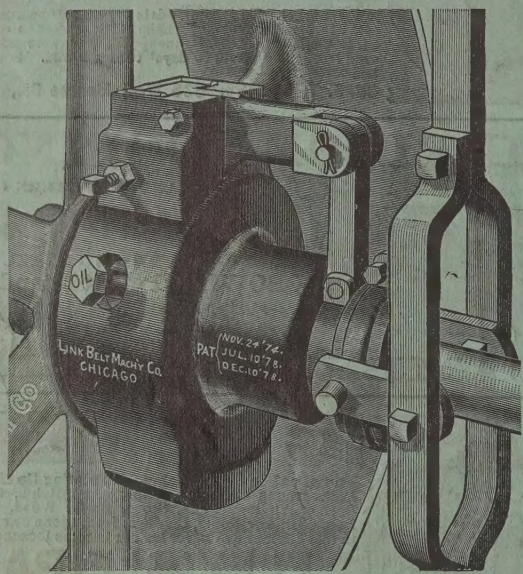
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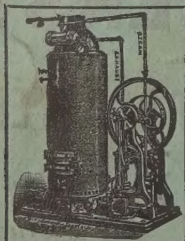
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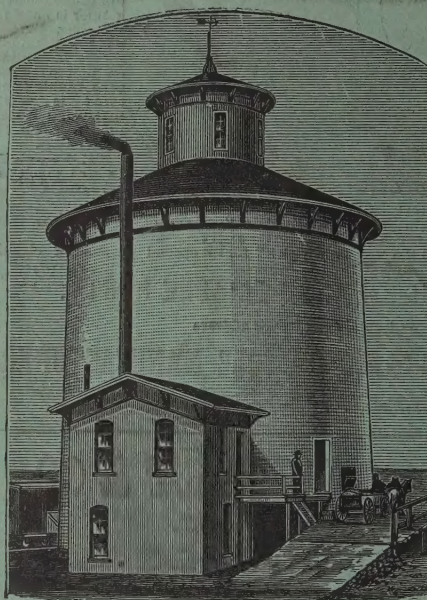


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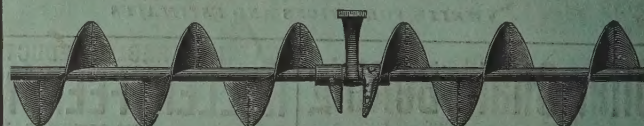
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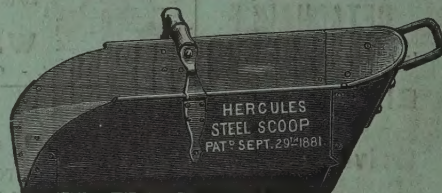
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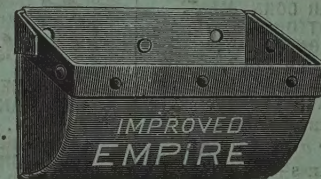
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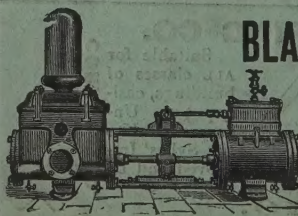
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